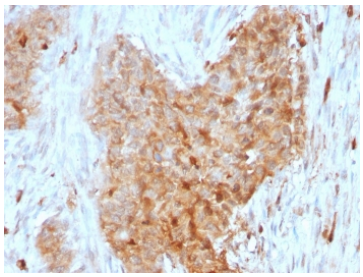
GPI Antibody / Glucose 6-Phosphate Isomerase Antibody [clone CPTC-GPI-1] (V7817)

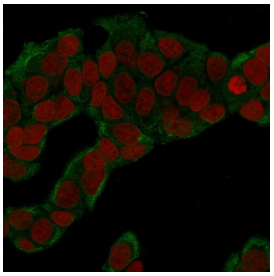
Catalog No.	Formulation	Size
V7817-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7817-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7817SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

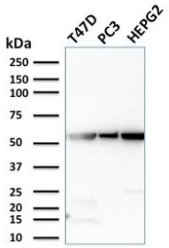
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	CPTC-GPI-1
Purity	Protein G affinity chromatography
UniProt	P06744
Localization	Cytoplasmic
Applications	Western blot: 1-2ug/ml Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This GPI Antibody / Glucose 6-Phosphate Isomerase Antibody is available for research use only.



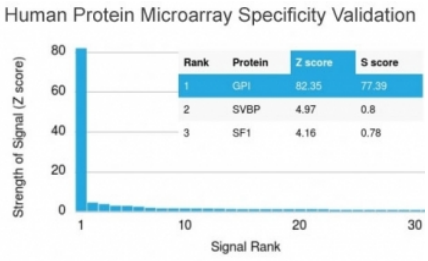
GPI Antibody Human Breast Carcinoma IHC. Immunohistochemistry was performed on FFPE human breast carcinoma tissue using GPI Antibody (clone CPTC-GPI-1). Heat-induced epitope retrieval was carried out in pH 9 Tris-EDTA buffer prior to antibody incubation. Bound antibody was visualized using an HRP-based detection system with DAB chromogen. Strong cytoplasmic staining is observed throughout the neoplastic epithelial cells, consistent with the elevated expression of Glucose 6-Phosphate Isomerase frequently associated with increased glycolytic activity in malignant tissues. These results demonstrate that this Glucose 6-Phosphate Isomerase Antibody, Protein Microarray Validated with clone CPTC-GPI-1, is suitable for immunohistochemical detection of GPI in formalin-fixed, paraffin-embedded human breast carcinoma tissue.



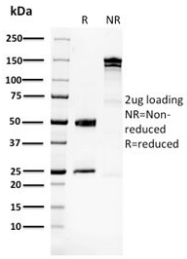
GPI Antibody MCF-7 Cell IF. Immunofluorescence was performed on fixed human MCF-7 cells using GPI Antibody (clone CPTC-GPI-1, green). Nuclei were counterstained with RedDot (red). Strong diffuse cytoplasmic staining is observed throughout the cells with minimal nuclear signal, consistent with the predominant cytosolic localization of Glucose 6-Phosphate Isomerase as a key glycolytic enzyme. These results demonstrate that this Glucose 6-Phosphate Isomerase Antibody, Protein Microarray Validated with clone CPTC-GPI-1, is suitable for immunofluorescent detection of endogenous GPI in human MCF-7 cells.



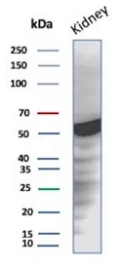
GPI Antibody Human Cancer Cell WB. Western blot analysis was performed using GPI Antibody. Lane 1: human T-47D cell lysate; lane 2: human PC-3 cell lysate; lane 3: human HepG2 cell lysate. A specific immunoreactive band is detected at approximately 63 kDa in all three human cancer cell lines, consistent with the expected molecular weight of Glucose 6-Phosphate Isomerase. These results demonstrate that this Glucose 6-Phosphate Isomerase Antibody, Protein Microarray Validated, is suitable for Western blot detection of endogenous GPI in human cancer cell lysates.



GPI Antibody Protein Microarray Validation. Specificity of GPI Antibody (clone CPTC-GPI-1) was evaluated using the HuProt human protein microarray containing more than 19,000 full-length human proteins. The antibody demonstrated exceptional target specificity, with GPI ranked as the highest-scoring protein (Z-score: 82.35; S-score: 77.39), while all non-target proteins produced substantially lower signals. The Z-score reflects the strength of antibody binding relative to the array background, whereas the S-score measures target specificity by comparing the intended target with the next highest-ranking protein. These results demonstrate that this Glucose 6-Phosphate Isomerase Antibody, Protein Microarray Validated with clone CPTC-GPI-1, exhibits outstanding specificity for GPI with minimal off-target reactivity.



SDS-PAGE analysis of purified, BSA-free Glucose 6-Phosphate Isomerase antibody (clone CPTC-GPI-1) as confirmation of integrity and purity.



GPI Antibody Human Kidney WB. Western blot analysis was performed on human kidney tissue lysate using GPI Antibody. A specific immunoreactive band is detected at approximately 63 kDa, consistent with the expected molecular weight of Glucose 6-Phosphate Isomerase. The blot demonstrates robust detection of endogenous GPI with minimal background, supporting reliable recognition of this abundantly expressed glycolytic enzyme in human tissue. These results demonstrate that this Glucose 6-Phosphate Isomerase Antibody, Protein Microarray Validated, is suitable for Western blot detection of endogenous GPI in human kidney tissue lysates.

Description

GPI Antibody recognizes glucose 6-phosphate isomerase (GPI), a multifunctional protein that catalyzes the reversible conversion of glucose 6-phosphate to fructose 6-phosphate during glycolysis and gluconeogenesis. As one of the central enzymes of carbohydrate metabolism, GPI helps regulate cellular energy production by linking glucose utilization with downstream metabolic pathways. In addition to its intracellular enzymatic role, GPI exhibits several extracellular cytokine-like activities under alternative names including autocrine motility factor (AMF) and neuroleukin. This remarkable functional diversity has made GPI an important target across metabolism, cancer biology, neuroscience, and immunology research. NSJ Bioreagents supplies GPI Antibody, clone CPTC-GPI-1, a mouse monoclonal antibody validated for specificity using a comprehensive protein microarray.

Within the cytoplasm, GPI is an essential housekeeping enzyme required for efficient glycolytic flux in virtually all cell types. When secreted, however, the same protein functions independently of its enzymatic activity as autocrine motility factor, promoting cell migration, invasion, proliferation, and survival through activation of signaling pathways in responsive cells. As neuroleukin, GPI also supports neuronal survival and axonal growth, illustrating its diverse biological functions beyond intermediary metabolism. Consequently, GPI Antibody is widely used to investigate cellular metabolism, protein secretion, tumor progression, and neurobiology.

Aberrant GPI expression has been reported in numerous malignancies, including breast, colorectal, gastric, pancreatic, and lung cancers, where elevated autocrine motility factor activity contributes to tumor invasion, metastasis, and angiogenesis. GPI has also been implicated in autoimmune arthritis, inherited GPI deficiency associated with chronic hemolytic anemia, and neurological disorders linked to altered neuronal survival signaling. Because this protein bridges fundamental metabolic processes with extracellular signaling networks, it continues to attract considerable interest as both a biomarker and potential therapeutic target. Researchers frequently employ GPI Antibody to study glycolysis, cancer cell biology, immune responses, and mechanisms regulating cell migration.

A GPI Antibody is a valuable reagent for investigating glucose metabolism, glycolytic regulation, extracellular cytokine signaling, and tumor biology. By enabling reliable detection of Glucose 6-Phosphate Isomerase, a GPI Antibody supports research into cellular metabolism, cancer progression, neurobiology, and immune regulation. The CPTC-GPI-1 clone has also been Protein Microarray Validated, demonstrating high specificity for its intended target and providing additional confidence for demanding research applications.

Explore additional antibodies involved in metabolic regulation and cellular homeostasis on our Metabolism Antibodies page.

Application Notes

Optimal dilution of the GPI Antibody / Glucose 6-Phosphate Isomerase Antibody should be determined by the researcher.

Immunogen

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

Storage

Store the GPI antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Glucose 6-Phosphate Isomerase antibody, Phosphoglucose Isomerase antibody, Autocrine Motility Factor antibody, Neuroleukin antibody, Phosphohexose Isomerase antibody, AMF antibody

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