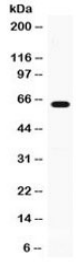
Glucose-6-phosphate isomerase Antibody / GPI (R32537)

Catalog No.	Formulation	Size
R32537	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P06745
Localization	Cytoplasmic
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Glucose-6-phosphate isomerase antibody is available for research use only.



Western blot testing of mouse thymus lysate with GPI antibody at 0.5ug/ml.
Predicted/observed molecular weight: ~64 kDa.

Description

Glucose-6-phosphate isomerase (GPI), alternatively known as phosphoglucose isomerase (PGI) or phosphohexose isomerase (PHI), is an enzyme that in humans is encoded by the GPI gene on chromosome 19. 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-phophsate 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.

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

Differences in protocols and secondary/substrate sensitivity may require the Glucose-6-phosphate isomerase antibody to be titrated for optimal performance.

Immunogen

Amino acids 2-39 (AALTRNPQFQKLLEWHRANSANLKLRELFEADPERFNN) from the mouse protein were used as the immunogen for the Glucose-6-phosphate isomerase antibody.

Storage

After reconstitution, the Glucose-6-phosphate isomerase antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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