

Product datasheet for PH301232

Glucose 6 phosphate isomerase (GPI) (NM_000175) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	GPI MS Standard C13 and N15-labeled recombinant protein (NP_000166)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201232
Predicted MW:	63.1 kDa
Protein Sequence:	>RC201232 protein sequence Red=Cloning site Green=Tags(s)

MAALTRDPQFQKLQQWYREHRSELNLRRLFDANKDRFNHFSLTLNTNHGHILVDYSKNLVTEDVMRMLVD
LAKSRGVEAARERMFNGEKINYTEGRAVLHVALRNRSNTPILVDGKDVMPVKNKVLDKMKSFCQVRVSGD
WKGYTGKTIITDVINIGIGGSDLGPLMVTEALKPYSGGPRVWVYSNIDGTHIAKTLAQLNPESLFIAS
KTFTTQETITNAETAKEWFLQAAKDPSAVAKHFVALSTNTTKVKEFGIDPQNMFEFWDWVGGRYLSWAI
GLSIALHVGFDFEQLLSGAHWMDQHFRTTPLEKNAPVLLALLGIWYINCFGCETHAMLPYDQYLHRFAA
YFQQGDMEANGKYITKSGTRVDHQTGPIVWGEPGTNGQHAFYQLIHQGTKMIPCDFLIPVQTQHPIRKGL
HHKILLANFLAQTEALMRGKSTEEARKELQAAGKSPEDLERLLPHKVFEGNRPTNSIVFTKLTPTFMLGAL
VAMYEHKIFVQGI IWDINSFDQWGVELGKQLAKKIEPELDGSAQVTSHDASTNGLINFIKQQREARVQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_000166
RefSeq Size:	4212
RefSeq ORF:	1674



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Synonyms: AMF; GNPI; NLK; PGI; PHI; SA-36; SA36

Locus ID: 2821

UniProt ID: [P06744](#)

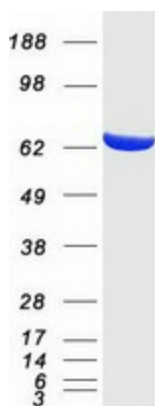
Cytogenetics: 19q13.11

Summary: 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]

Protein Families: Druggable Genome

Protein Pathways: Amino sugar and nucleotide sugar metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway, Starch and sucrose metabolism

Product images:



Coomassie blue staining of purified GPI protein (Cat# [TP301232]). The protein was produced from HEK293T cells transfected with GPI cDNA clone (Cat# [RC201232]) using MegaTran 2.0 (Cat# [TT210002]).