

Recombinant Human GPI Protein, His-tagged

Cat. No. GPI-002H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full length human GPI protein (1-434) with a C-terminal His tag was expressed in E. coli citrullinated by PAD2.
Species	Human
Source	E.coli
ProteinLength	1-434
Description	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.
Molecular Mass	66 kDa

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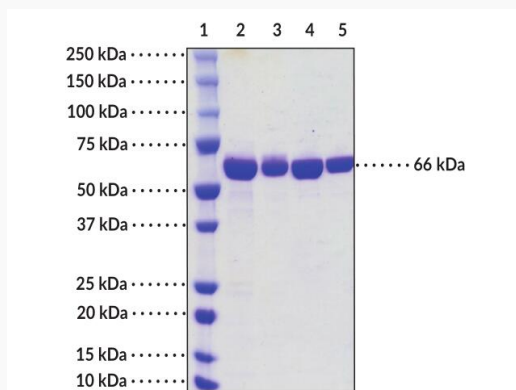
Purity	≥90% as determined by SDS-PAGE
Stability	≥ 1 year
Storage	At -80 centigrade.
Storage Buffer	25 mM Tris, pH 7.0, with 100 mM sodium chloride, and 10% glycerol
GENE INFORMATION	
Gene Name	GPI glucose-6-phosphate isomerase [Homo sapiens (human)]
Official Symbol	GPI
Synonyms	GPI; glucose-6-phosphate isomerase; AMF; NLK; PGI; PHI; GNPI; SA36; SA-36; glucose-6-phosphate isomerase; autocrine motility factor; hexose monophosphate isomerase; hexosephosphate isomerase; neuroleukin; oxoisomerase; phosphoglucose isomerase; phosphohexomutase; phosphohexose isomerase; phosphosaccharomutase; sperm antigen-36; EC 5.3.1.9
Gene ID	2821
mRNA Refseq	NM_000175
Protein Refseq	NP_000166
MIM	172400
UniProt ID	P06744

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**SDS-PAGE analysis
of Citrullinated
Glucose-6-
phosphate
Isomerase**



Lane 1: MW Markers

Lane 2: eNOS (2 µg)

Lane 3: eNOS (4 µg)

Lane 4: eNOS (8 µg)

**Identification of
modified sites in
Citrullinated
Glucose-6-
phosphate
Isomerase.**

MGSAEGSSMA	ALTDPQFQK	LQQWYREHRS	ELNLRRLFDA	NKDRFNHFSL
TLNTHGHIL	VDYSKNLVE	DVMRMLVDLA	KSRGVEAARE	RMFNGEKINY
TEGRAVLHVA	LRNRSNTPI	VDGKDVMEV	NKVLDMKSF	CQRLVRSQDWK
GYTGKTIIDV	INIGIGSDL	GPLMYTEALK	PYSSGGPRVW	YYSNIDGTHI
AKTLAQLNPE	SSLFIASKT	FTTQETITNA	ETAKEWFLQA	AKDPSAVAKH
FVALSTNTTK	VKEFGIDPQN	MFEFDWVGG	RYSLWSAIGL	SIALHVGFDN
FEQLLSGAHW	MDQHFRITPL	EKNAPVLLAL	LGIWYINCFG	CETHAMLPYD
QYLHRFAAYF	QQGDMESNGK	VITKSQTRVD	HQTGPIVWGE	PGTNGQHAFY
QLIHQQTMI	PCDFLIPVQT	QHPIRKGLHH	KILLANFLAQ	TEALMKGKST
EEARKELQAA	GKSPEDLERL	LPHKVFEGNR	PTNSIVFTKL	TPFMLGALVA
MYEHKIFVQG	IIWDINSFDQ	WGVELGKQLA	KKIEPELDGS	AQVTSHDAST
NGLINFIKQQ	REARVQTFPQ	QLAAALEHH	HHHH	

Citrullinated Glucose-6-phosphate Isomerase was detected by LC-MS/MS and analyzed using Mascot and Scaffold PTM software. Deiminated arginines are indicated in teal.

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