

Recombinant Human Glucose Phosphate Isomer, His-tagged

Cat. No. GPI-480H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GPI, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques.
Species	Human
Source	<i>E.coli</i>
Description	Glucose-6-phosphate isomerase, also known as GPI, belongs to the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. The protein encoded by this gene is a dimeric enzyme that catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. Mammalian GPI can function as a tumor-secreted cytokine and an angiogenic factor (AMF) that stimulates endothelial cell motility. GPI is also a neurotrophic factor (Neuroleukin) for spinal and sensory neurons.
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MAALTRDPQF QKLQQWYREH RSELNLRRLF DANKDRFNHF SLTLNTNHGH ILVDYSKNLV TEDVMRMLVD LAKSRGVEAA RERMFNGEKI NYTEGRAVLH VALNRNSNTP ILVDGKDVMV EVNKVLDKMK SFCQVRVSGD WKGYTGTIT DVINIGIGGS DLGPLMVTEA LKPYS SGGPR VWYVSNI DGT HIAKTLAQLN PESSLFIIAS KTFTTQETIT NAETAKEWFL QAAKDPSAVA KHFVALSTNT TKVKEFGIDP QNMFEFWDWV GGRYSLWSAI GLSIALHVGF DNFEQLLSGA HWMDQHFRTT PLEKNAPVLL ALLGIWYINC FGCETHAMLP YDQYLHRFAA YFQQGD MESN GKYITKSGTR VDHQTGPIVW GEPGTNGQHA FYQLIHQGTK MIPCDFLIPV QTQHP IIRKGL HHKILLANFL

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AQTEALMRGK STEEARKELQ AAGKSPEDLE RLLPHKVFEG NRPTNSIVFT
 KLTPFMLGAL VAMYEHKIFV QGIIWDINSF DQWGVELGKQ LAKKIEPELD
 GSAQVTSHDA STNGLINFIK QQREARVQ

Form Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 10% glycerol

Purity > 95% by SDS – PAGE.

Concentration 1 mg/ml (determined by Bradford assay).

Endotoxin Level < 1.0 EU per 1 µg of protein (determined by LAL method).

Storage Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name GPI glucose phosphate isomerase [Homo sapiens]

Synonyms GPI; glucose phosphate isomerase; AMF; NLK; PGI; PHI; GNPI; SA36; neuroleukin; oxoisomerase; sperm antigen-36; Phosphohexomutase; phosphosaccharomutase; phosphohexose isomerase; autocrine motility factor; hexosephosphate isomerase; glucose-6-phosphate isomerase; hexose monophosphat isomerase; EC 5.3.1.9; 5` partial; SA-36; Neuroleukin; Autocrine motility factor; Phosphohexose isomerase

Gene ID 2821

mRNA Refseq NM_000175

Protein Refseq NP_000166

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MIM	172400
UniProt ID	P06744
Chromosome Location	19q13.1
Pathway	Amino sugar and nucleotide sugar metabolism; Biosynthesis of alkaloids derived from histidine and purine; Biosynthesis of alkaloids derived from ornithine, lysine and nicotinic acid; Biosynthesis of alkaloids derived from shikimate pathway; Biosynthesis of alkaloids derived from terpenoid and polyketide; Biosynthesis of phenylpropanoids; Biosynthesis of plant hormones; Biosynthesis of terpenoids and steroids; Glycolysis / Gluconeogenesis; Metabolic pathways; Pentose phosphate pathway; Starch and sucrose metabolism; Diabetes pathways; Integration of energy metabolism; Metabolism of carbohydrates
Function	cytokine activity; glucose-6-phosphate isomerase activity; growth factor activity; isomerase activity