

# 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 *E.coli* and purified by using conventional chromatography techniques.

**Species** Human

**Source** E.coli

**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 VALRNRSNTP ILVDGKDVMPEVNKVLDMK  
 SFCQVRSGD WKGYTGKTIT DVINIGIGGS DLGPLMVTEA LKPYSSGGPR  
 VWYVSNIDGT HIAKTLAQLN PESSLFIAS KTFTTQETIT NAETAKEWFL  
 QAAKDPSAVA KHFVALSTNT TKVKEFGIDP QNMFEFWDWV GGRYSLWSAI  
 GLSIALHVGF DNFEQLLSGA HWMDQHFRTT PLEKNAPVLL ALLGIWYINC  
 FGCETHMLP YDQYLHRFAA YFQQGDMESENKYITKSGTR VDHQTGPIVW  
 GEPGTNGQHA FYQLIHQGTK MIPCDFLIPV QTQHPIRKGL HHKILLANFL

Tel: 1-631-559-9269 1-516-512-3133

Email: [info@creative-biomart.com](mailto:info@creative-biomart.com) Fax: 1-631-938-8127

45-1 Ramsey Road, Shirley, NY 11967, USA

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](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>MIM</b>	172400
<b>UniProt ID</b>	P06744
<b>Chromosome Location</b>	19q13.1
<b>Pathway</b>	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
<b>Function</b>	cytokine activity; glucose-6-phosphate isomerase activity; growth factor activity; isomerase activity

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA