

Glucose-6-phosphate isomerase Protein, Mouse (P.pastoris, His)

Cat. No.:	HY-P71738
Synonyms:	Gpi; Gpi1Glucose-6-phosphate isomerase; GPI; AMF; Neuroleukin; NLK; PHI
Species:	Mouse
Source:	P. pastoris
Accession:	P06745 (2A-558E)
Gene ID:	14751
Molecular Weight:	Approximately 64.6 kDa

PROPERTIES

AA Sequence

A A L T R N P Q F Q	K L L E W H R A N S	A N L K L R E L F E	A D P E R F N N F S
L N L N T N H G H I	L V D Y S K N L V N	K E V M Q M L V E L	A K S R G V E A A R
D N M F S G S K I N	Y T E N R A V L H V	A L R N R S N T P I	K V D G K D V M P E
V N R V L D K M K S	F C Q R V R S G D W	K G Y T G K S I T D	I I N I G I G G S D
L G P L M V T E A L	K P Y S K G G P R V	W F V S N I D G T H	I A K T L A S L S P
E T S L F I I A S K	T F T T Q E T I T N	A E T A K E W F L E	A A K D P S A V A K
H F V A L S T N T A	K V K E F G I D P Q	N M F E F W D W V G	G R Y S L W S A I G
L S I A L H V G F D	H F E Q L L S G A H	W M D Q H F L K T P	L E K N A P V L L A
L L G I W Y I N C Y	G C E T H A L L P Y	D Q Y M H R F A A Y	F Q Q G D M E S N G
K Y I T K S G A R V	D H Q T G P I V W G	E P G T N G Q H A F	Y Q L I H Q G T K M
I P C D F L I P V Q	T Q H P I R K G L H	H K I L L A N F L A	Q T E A L M K G K L
P E E A R K E L Q A	A G K S P E D L E K	L L P H K V F E G N	R P T N S I V F T K
L T P F I L G A L I	A M Y E H K I F V Q	G I M W D I N S F D	Q W G V E L G K Q L
A K K I E P E L E G	S S A V T S H D S S	T N G L I S F I K Q	Q R D T K L E

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Lyophilized powder.

Formulation Lyophilized after extensive dialysis against solution in PBS, 6% Trehalose, pH 7.4.

Endotoxin Level <1 EU/μg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O.

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Glucose-6-phosphate isomerase protein, localized in the cytoplasm, serves a dual function: it catalyzes the conversion of glucose-6-phosphate to fructose-6-phosphate, playing a pivotal role in both glycolysis and the reverse reaction during gluconeogenesis. Beyond its enzymatic involvement in metabolic pathways, this protein exhibits additional roles as a secreted cytokine. Functioning as an angiogenic factor (AMF), it stimulates endothelial cell motility, suggesting its participation in angiogenesis. Furthermore, glucose-6-phosphate isomerase acts as a neurotrophic factor known as neuroleukin, specifically influencing spinal and sensory neurons. Notably, it is secreted by lectin-stimulated T-cells, where it induces immunoglobulin secretion. This multifaceted protein showcases its versatility, contributing to both fundamental metabolic processes and exhibiting extracellular functions with implications in angiogenesis, neurotrophic support, and immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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