Glucose-6-phosphate isomerase Protein, Human (His)

Cat. No.:	HY-P71680
Synonyms:	AMF; Aurocrine motility factor; Autocrine motility factor; DKFZp686C13233; EC 5.3.1.9; Neuroleukin; NLK; Oxoisomerase; PGI; PHI; Phosphoglucose isomerase; SA-36; SA36; Sperm antigen 36
Species:	Human
Source:	E. coli
Accession:	P06744 (A2-E554)
Gene ID:	2821
Molecular Weight:	Approximately 65.0 kDa

PROPERTIES

AA Sequence	A A L T R D P Q F Q K L Q Q W Y R E H R S E L N L R R L F D A N K D R F N H F S L T L N T N H G H I L V D Y S K N L V T E D V M R M L V D L A K S R G V E A A R E R M F N G E K I N Y T E G R A V L H V A L R N R S N T P I L V D G K D V M P E V N K V L D K M K S F C Q R V R S G D W K G Y T G K T I T D V I N I G I G G S D L G P L M V T E A L K P Y S S G G P R V W Y V S N I D G T H I A K T L A Q L N P E S 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 Q A A K D P S A V A K H F V A L S T N T T 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 N F E Q L L S G A H W M D Q H F R T T P L E K N A P V L L A L L G I W Y I N C F G C E T H A M L P Y D Q Y L H R F A A Y F Q Q G D M E S N G K Y I T K S G T 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 R G K S T E E A R K E L Q A A G K S P E D L E R L L P H K V F E G N R P T N S I V F T K L T P F M L G A L V A M Y E H K I F V Q G I I 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 D G S A Q V T S H D A S T N G L I N F I K Q Q R 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 from a 0.2 μm sterile filtered PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	In the cytoplasm, the Glucose-6-phosphate isomerase protein plays a pivotal role in glycolysis by catalyzing the conversion of glucose-6-phosphate to fructose-6-phosphate, representing the second step in this metabolic pathway, and it reversibly performs this reaction during gluconeogenesis. Beyond its function as a glycolytic enzyme, this protein exhibits additional roles as a secreted cytokine. Functioning as an angiogenic factor (AMF), it stimulates endothelial cell motility, contributing to angiogenesis. Moreover, Glucose-6-phosphate isomerase acts as a neurotrophic factor, known as neuroleukin, specifically benefiting spinal and sensory neurons. Notably, it is secreted by lectin-stimulated T-cells, where it induces immunoglobulin secretion, highlighting its diverse and multifunctional roles both intracellularly and extracellularly in various physiological processes.

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