Creative Enzymes®

Glucose-6-Phosphate Isomerase from Human, Recombinant

Cat. No. NATE-0841

Lot. No. (See product label)

Introduction

Description	Glucose-6-phosphate isomerase (GPI) is a part of the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. GPI is a dimeric enzyme which catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. Mammalian GPI also functions as a tumor-secreted cytokine and an angiogenic factor (AMF) which stimulates endothelial cell motility. In addition, GPI is a neurotrophic factor (Neuroleukin) for spinal and sensory neurons. GPI performs in different capacities inside and outside the cell. In the cytoplasm, GPI is involved in glycolysis and gluconeogenesis, while outside the cell it acts as a neurotrophic factor for spinal and sensory neurons. Defects in the GPI gene cause the nonspherocytic hemolytic anemia and a severe enzyme deficiency can be linked to hydrops fetalis, immediate neonatal death and neurological impairment.
Synonyms	Glucose-6-phosphate isomerase; Phosphoglucose isomerase; Phosphohexose isomerase; Autocrine motility factor; Neuroleukin; Sperm antigen 36; GPI; PGI; PHI; AMF; NLK; SA-36; GNPI

Product Information

Species	Human
Source	E. coli
Appearance	Sterile Filtered colorless solution.
Molecular Weight	65.3 kDa
Purity	Greater than 95.0% as determined by SDS-PAGE.
Buffer	The GPI solution contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT and 10% glycerol.

Storage and Shipping Information

Stability	GPI although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.