

32-2389: GPI Recombinant Protein

Alternative Name : Glucose-6-phosphate isomerase, Phosphoglucose isomerase, Phosphohexose isomerase, Autocrine motility factor, Neuroleukin, Sperm antigen 36, GPI, PGI, PHI, AMF, NLK, SA-36, GNPI.

Description

Source : Escherichia Coli. GPI Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 578 amino acids (1-558 a.a.) and having a molecular mass of 65.3kDa. The GPI is purified by proprietary chromatographic techniques. 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.

Product Info

Amount : 20 µg

Purification : Greater than 95.0% as determined by SDS-PAGE.

Content : The GPI solution (1mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 1mM DTT and 10% glycerol.

Storage condition : Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Amino Acid : MGSSHHHHHH SGLVPRGSH MAALTRDPQF QKLQQWYREH RSELNLRRLF DANKDRFNHF
SLTLNTNHGH ILVDYSKNLV TEDVMRMLVD LAKSRGVEAA RERMFNGEKI NYTEGRAVLH
VALNRNSNTP ILVDGKDVMPEVNKVLKMK SFCQVRVSGD WKGYTGKTIT DVINIGIGGS
DLGPLMVTEA LKPYSSGGPR VWYVSNIDGT HIAKTLAQLN PESSLFIAS KTFTTQETIT
NAETAKEWFL QAAKDPSAVA KHFFVALSTNT TKVKEFGIDP QNMFEFWDWV GGRYSLWSAI
GLSIALHVGFDNFEQLLSGA HWMDQHFRTT PLEKNAPVLL ALLGIWYINC FGCETHAMLP
YDQYLHRFAA YFQQGDMESN GKYITKSGTR VDHQTGPVW GEPGTNGQHA FYQLIHQGTK
MIPCDFLIPV QTQHPIRKGL HHKILLANFL AQTEALMRGK STEEARKELQ AAGKSPEDLE
RLLPHKVFEG NRPTNSIVFT KLTPFMLGAL VAMYEHKIFV QGIIWDINSF DQWGVELGKQ
LAKKIEPELD GSAQVTSHDA STNGLINFIK QQREARVQ.

