

32-6774: GPI Human, Active

Application : Functional Assay

Alternative Name : Glucose-6-phosphate isomerase, Autocrine motility factor, Neuroleukin, Phosphoglucose isomerase, Phosphohexose isomerase, Sperm antigen 36, GPI, AMF, GNPI, NLK, PGI, PHI, SA36, SA-36.

Description

Source: Escherichia Coli.

Sterile Filtered colorless solution.

GPI or Glucose-6-phosphate isomerase, is a protein, part of the multifunctional phosphoglucose isomerase family, which its members take part in energy pathways. GPI is a dimeric enzyme that enhances the isomerization of glucose-6-phosphate and fructose-6- phosphate (both reversible). In mammals, GPI acts as an angiogenic factor & tumor-secreted cytokine. The enzyme also acts as a neurotrophic factor for spinal & sensory neurons.

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

Product Info

Amount : 2 µg / 10 µg

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

Content : The GPI solution (1 mg/ml) contains 10% Glycerol, 1mM DTT and 20mM Tris-HCl buffer (pH 8.0).

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 SSGLVPRGSH MAALTRDPQF QKLQQWYREH RSELNLRRLF DANKDRFNHF
SLTLNTHGH ILVDYSKNLV TEDVMRMLVD LAKSRGVEAA RERMFNGEKI NYTEGRAVLH VALNRNSNTP
ILVDGKDVMP EVNKVLDKMK SFCQVRSGD WKGYTGTIT DVINIGIGGS DLGPLMVTEA LKPYSSGGPR
VWYVSNIDGT HIAKTLAQLN PESSLFIAS KTFTTQETIT NAETAKEWFL QAAKDPSAVA KHVALSTNT
TKVKEFGIDP QNMFEFWDWV GGRYSLWSAI GLSIALHVGDFNFEQLLSGA HWMDQHFRTT PLEKNAPVLL
ALLGIWYINC FGCETHAMLP YDQYLHRFAA YFQQGDMESN GKYITKSGTR VDHQTGPVW
GEPGTNGQHA FYQLIHQGTK MIPCDFLIPV QTQHPIRKGL HHKILLANFL AQTEALMRGK STEEARKELQ
AAGKSPEDLE RLLPHKVFEGRNRPTNSIVFT KLTPFMLGAL VAMYEHKIFV QGIIWDINSF DQWGVLELQKQ
LAKKIEPELD GSAQVTSHDA STNGLINFIK QQREARVQ

Application Note

Specific activity is > 400unit/mg. It is defined by the increase of NADPH in absorbance at 340 nm, resulting from the reduction of NADP. 1 unit will convert 1.0 umole of D-Fructose 6-phosphate to D-glucose 6- phosphate per minute at pH 7.4 at 37°C.