Recombinant human GPI protein

Catalog Number: ATGP3232

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-558aa

UniProt No.
P06744

NCBI Accession No.
NP_000166

Alternative Names
GPI, AMF, GNPI, NLK, PGI, PHI, SA36

PRODUCT SPECIFICATION

Molecular Weight
65.3 kDa (578aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

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

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

Recombinant human GPI protein

Catalog Number: ATGP3232

BACKGROUND

Description

Glucose-6-phosphate isomerase, also known as GPI, belongs to the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. The protein encoded by this gene is a dimeric enzyme that catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. Mammalian GPI can function as a tumor-secreted cytokine and an angiogenic factor (AMF) that stimulates endothelial cell motility. GPI is also a neurotrophic factor (Neuroleukin) for spinal and sensory neurons. Recombinant human GPI, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

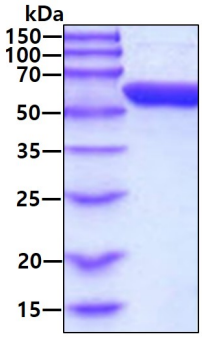
<MGSSHHHHHH SSGLVPRGSH> MAALTRDPQF QKLQQWYREH RSELNLRRLF DANKDRFNHF SLTLNTNHGH ILVDYSKNLV TEDVMRMLVD LAKSRGVEAA RERMFNGEKI NYTEGRAVLH VALRNRSNTP ILVDGKDVMP EVNKVLDKMK SFCQRVRSGD WKGYTGKTIT DVINIGIGGS DLGPLMVTEA LKPYSSGGPR VWYVSNIDGT HIAKTLAQLN PESSLFIIAS KTFTTQETIT NAETAKEWFL QAAKDPSAVA KHFVALSTNT TKVKEFGIDP QNMFEFWDWV GGRYSLWSAI GLSIALHVGF DNFEQLLSGA HWMDQHFRTT PLEKNAPVLL ALLGIWYINC FGCETHAMLP YDQYLHRFAA YFQQGDMESN GKYITKSGTR VDHQTGPIVW GEPGTNGQHA FYQLIHQGTK MIPCDFLIPV QTQHPIRKGL HHKILLANFL AQTEALMRGK STEEARKELQ AAGKSPEDLE RLLPHKVFEG NRPTNSIVFT KLTPFMLGAL VAMYEHKIFV QGIIWDINSF DQWGVELGKQ LAKKIEPELD GSAQVTSHDA STNGLINFIK QQREARVQ

General References

Lin HY., et al. (2009) Biochim Biophys Acta. 1794(2):315-23.
Beutler E., et al. (1997) Blood cells Mol. 23:402-409

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.