Recombinant human Hexokinase 3 protein

Catalog Number: HXK0701

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-923aa

UniProt No.
P52790

NCBI Accession No.
NP_002106.2

Alternative Names
HK3, Hexokinase 3, EC 2.7.1.1, Hexokinase type III, HK III, Hexokinase-3, HKIII, Hexokinase3, HK3, HXK3.

PRODUCT SPECIFICATION

Molecular Weight
101.1 kDa (943aa)

Concentration
1mg/ml (determined by Bradford assay)

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

Purity
> 95% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

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.

BACKGROUND

Description
Hexokinase is the first enzyme in the glycolytic pathway, catalyzing the transfer of a phosphoryl group from ATP to glucose to form glucose-6-phosphate and ADP. In mammals, four distinct enzymes-types 1 to 4 hexokinases-have been identified. The enzyme is found in most cells, but there is tissue specificity for the particular type of hexokinase. Hexokinase3 lacks the hydrophobic N-terminal sequence critical for targeting to mitochondria. Hexpkinase3 may have anabolic functions, providing H6P for glycogen or lipid synthesis. Recombinant human Hexokinase3, fused to His tag at N-terminus, was expressed in E. coli and purified by using conventional

chromatography techniques.

Amino acid Sequence

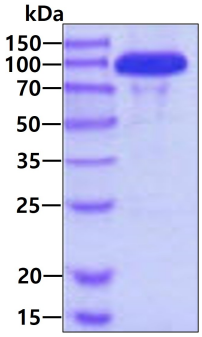
<MGSSHHHHHH SSGLVPRGSH> MDSIGSSGLR QGEETLSCSE EGLPGPSDSS ELVQECLQQF KVTRAQLQQI QASLLGSMEQ ALRGQASPAP AVRMLPTYVG STPHGTEQGD FVVLELGATG ASLRVLWVTL TGIEGHRVEP RSQEFVIPQE VMLGAGQQLF DFAAHCLSEF LDAQPVNKQG LQLGFSFSFP CHQTGLDRST LISWTKGFRC SGVEGQDVVQ LLRDAIRRQG AYNIDVVAVV NDTVGTMMGC EPGVRPCEVG LVVDTGTNAC YMEEARHVAV LDEDRGRVCV SVEWGSFSDD GALGPVLTTF DHTLDHESLN PGAQRFEKMI GGLYLGELVR LVLAHLARCG VLFGGCTSPA LLSQGSILLE HVAEMEDPST GAARVHAILQ DLGLSPGASD VELVQHVCAA VCTRAAQLCA AALAAVLSCL QHSREQQTLQ VAVATGGRVC ERHPRFCSVL QGTVMLLAPE CDVSLIPSVD GGGRGVAMVT AVAARLAAHR RLLEETLAPF RLNHDQLAAV QAQMRKAMAK GLRGEASSLR MLPTFVRATP DGSERGDFLA LDLGGTNFRV LLVRVTTGVQ ITSEIYSIPE TVAQGSGQQL FDHIVDCIVD FQQKQGLSGQ SLPLGFTFSF PCRQLGLDQG ILLNWTKGFK ASDCEGQDVV SLLREAITRR QAVELNVVAI VNDTVGTMMS CGYEDPRCEI GLIVGTGTNA CYMEELRNVA GVPGDSGRMC INMEWGAFGD DGSLAMLSTR FDASVDQASI NPGKQRFEKM ISGMYLGEIV RHILLHLTSL GVLFRGQQIQ RLQTRDIFKT KFLSEIESDS LALRQVRAIL EDLGLPLTSD DALMVLEVCQ AVSQRAAQLC GAGVAAVVEK IRENRGLEEL AVSVGVDGTL YKLHPRFSSL VAATVRELAP RCVVTFLQSE DGSGKGAALV TAVACRLAQL TRV

General References

Jon E. et al.,(2003) J.Exp Biology. 206 : 2049-2057
Furuta H. et al.,(1996) Genomics. 1996
36(1):206-9.

DATA

SDS-PAGE



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