

Hexokinase 1, 1-917 aa

Human, His-tagging, Recombinant, *E.coli*

Cat. No. IBHXK0704

Synonyms: Hexokinase type I, Brain form hexokinase

NCBI Accession No.: NP_000179

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. Hexokinase1 is found in the adipose tissue and liver and encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this hexokinase1 have been associated with hemolytic anemia due to hexokinase deficiency. Recombinant human Hexokinase1, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

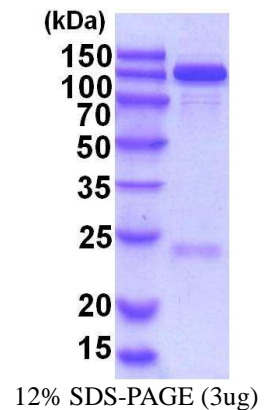
Form: Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Molecular Weight: 104.6kDa (937aa)

Purity: > 90% by SDS - PAGE

Concentration: 1 mg/ml (determined by Bradford assay)

Biological activity: Specific activity is > 3,000 pmol/min/ug. One unit will convert 1 pmoles of D-Glucose to D-Glucose-6-phosphate per minute at pH 7.5 at 37C.



Sequences of amino acids:

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MGSSHHHHHH SSGLVPRGSH MIAAQLLAYY FTELKDDQVK KIDKYLYAMR LSETLIDIM TRFRKEMKNG LSRDFNPTAT VKMLPTFVRS
IPDGSEKGF IALDLGGSSF RILRVQVNH KQNVHMESE VYDTPENIVH GSGSQLFDHV AECLGDFMEK RKIKDKKLPV GFTFSFPCQQ
SKIDEAILIT WTKRFKASGV EGADVVKLLN KAIKRGDGDY ANIVAVVNDT VGTMMTCGYD DQHCEVGLII GTGTNACyme ELRHIDLVEG
DEGRMCINTE WGAFGDDGSL EDIRTEFDRE IDRGSLNPGK QLFKEMVSGM YLGELVRLIL VKMAKEGLLF EGRITPELLT RGKFNTSDVS
AIEKNKEGLH NAKEILTRLG VEPSDDCVS VQHVCTIVSF RSANLVAATL GAILNRLRDN KGTPRLRTV GVDGSLYKTH PQYSRRFHKT
LRLVPSDV RFLLESSESGS KGAAMVTAVA YRLAEQHRQI EETLAHFHLT KDMLELVKMR MRAMELGLR KQTHNNAVVK MLPSFVRRTPT
DGTENGDFLA LDLLGGTNRV LLVKIRSGKK RTVEMHNKIY AIPIEIMQGT GEELFDHIVS CISDFLDYMG IKGPRMPLGF TFSFPCQQT
LDAGILITWT KGFKATDCVG HDVVTLLRDA IKRREEFDLD VVAVVNDTVG TMMTCAYEEP TCEVGLIVGT GSNACymeEM KNVEMVEGDQ
GQMCINMEWG AFGDNGCLDD IRTHYDRLVD EYSLNAGKQR YEKMISGMYL GEIVRNILID FTKKGFLFRG QISETLKTGR IFETKFLSQI
ESDRLLALQV RAILQLGLN STCDDLSLVK TVCGVVSRA AQLCGAGMAA VVDKIRENRG LDRLNVTGV DGTLYKLHPH FSRIMHQTVK
ELSPKCNVVF LLEDGSGGK AALITAVGVR LRTEASS
    
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General references:

Jon E. *et al.*,(2003) *J.Exp Biology*. **206** : 2049-2057.

Furuta H. *et al.*,(1996) *Genomics*. **36**(1):206-9.

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



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