

## Human Recombinant Hexokinase 1

<b>CATALOG #:</b>	6309-100	100 µg
<b>ALTERNATE NAMES:</b>	Hexokinase type I, Brain form hexokinase, HK1.	
<b>SOURCE:</b>	E.Coli	
<b>PURITY:</b>	> 90% by SDS - PAGE	
<b>MOL. WEIGHT:</b>	104.6 kDa (937 aa – 1-917 aa +His Tag).	
<b>FORMULATION:</b>	1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol.	

### STORAGE CONDITIONS:

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.

### 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 vertebrates there are four major glucose-phosphorylating isoenzymes, designated hexokinase I, II, III, and IV. This 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.

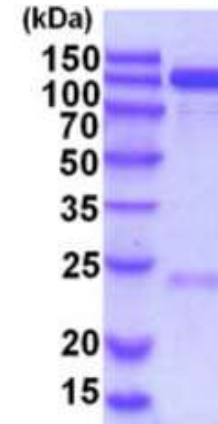
### AMINO ACID SEQUENCE:

MGSSHHHHHH SGLVPRGSH MIAAQLLAY FTELKDDQVK KIDKYLYAMR LSETLIDIM  
TRFRKEMKNG LSRDFNPTAT VKMLPTFVRS IPDGSEKGF IALDLGGSSF RILRVQVNH  
KNQNVHMESE VYDTPENIVH GSGQLFDHV AECLGDFMEK RKIKDKKLPV  
GFTSFPCQQ SKIDEAILIT WTKRFKASGV EGADVVKLLN KAIKKRGDYD ANIVAVVNDT  
VGTMMTCGYD DQHCEVGLII GTGTNACYME ELRHIDLVEG DEGRMCINTE  
WGAFGDDGSL EDIRTEFDRE IDRGSLNPGK QLFKEMVSGM YLGELVRLIL VKMAKEGLLF  
EGRITPELLT RGKFNSTSDVS AIEKNKEGLH NAKEILTRLG VEPSDDCVS VQHVCIVSF  
RSANLVAATL GAILNRLRDN KGTPRLRRTV GVDGSLYKTH PQYSRRFHKT  
LRRLPVSDV RFLLESSESGS KGAAMVTAVA YRLAEQHRQI EETLAHFHLT KDMILLEVKKR  
MRAEMELGLR KQTHNNAVVK MLPSFVRRTP DGTENGDFLA LDLGGTNFRV

LLVKIRSGKK RTVEMHNKIY AIPIEQGT GEELFDHIVS CISDFLDYMG IKGPRMPLGF  
TFSFPCQQTSLDAGILITWT KGFKATDCVG HDVVTLRDA IKRREEFDLD VVAVVNDTVG  
TMMTCAYEEP TCEVGLIVGT GSNACYMEEM KNVEMVEGDQ GQMCINMEWG  
AFGDNGCLDD IRTHYDRLVD EYSLNAGKQR YEKMISGMYL GEIVRNILID FTKKGFLLFRG  
QISETLKTRG IFETKFLSQI ESDRLALLQV RAILQQLGLN STCDDSDILVK TVCGVVSRRR  
AQLCGAGMAA VVDKIRENRG LDRLNVTGVG DGTLYKLPHF FSRIMHQTVK  
ELSPKCNVSF LLEDGSGGK AALITAVGVR LRTEASS

### 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 pH7.5 at 37°C.



### RELATED PRODUCTS:

- Hexokinase Colorimetric assay kit (**Cat. No. K789-100**)
- Human recombinant HK2 (**Cat. No. 6308-100**)
- HK2 (Hexokinase II) (Center) Antibody (**Cat. No. 3145-100**)
- HK2 (Hexokinase II) (NT) Antibody (**Cat. No. 3144-100**)
- HK3 (Hexokinase III) (CT) Antibody (**Cat. No. 3143-100**)
- HK3 (Hexokinase III) (Center) Antibody (**Cat. No. 3198-100**)

**FOR RESEARCH USE ONLY! Not to be used in humans.**