

# Recombinant human Hexokinase 2 protein

Catalog Number: HXK0703

## PRODUCT INFORMATION

---

### Expression system

E.coli

### Domain

1-917aa

### UniProt No.

P52789

### NCBI Accession No.

NP\_000180

### Alternative Names

HK2, Hexokinase 2, EC 2.7.1.1, Hexokinase type II, HK II, Muscle form hexokinase, Hexokinase-2, hexokinase 2,

## PRODUCT SPECIFICATION

---

### Molecular Weight

104.1 kDa (937aa)

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

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

### Purity

> 85% by SDS-PAGE

### Biological Activity

Specific activity is > 12,000pmol/min/ug. One unit will convert 1pmole of D-Glucose to D-Glucose-6-phosphate per minute at pH8.0 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.

## 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

# Recombinant human Hexokinase 2 protein

Catalog Number: HXK0703

hexokinase. Hexokinase2 is found in the skeletal muscle and includes hydrophobic N-terminal sequence capable of targeting the hexokinase to mitochondria. Recombinant human Hexokinase2, fused to His tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

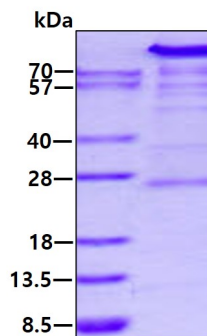
<MGSSHHHHHH SSGLVPRGSH> MIASHLLAYF FTELNHDQVQ KVDQYLYHMR LSETLLEIS KRFRKEMEKG  
 LGATTHPTAA VKMLPTFVRS TPDGTEHGEF LALDLGGTNF RVLWVKVTDN GLQKVEMENQ IYAIPEDIMR GSGTQLFDHI  
 AECLANFMDK LQIKDKKLPL GFTFSFPCHQ TKLDESFLVS WTKGFKSSGV EGRDVVALIR KAIQRRGDFD IDIVAVVNDT  
 VGTMMTCGYD DHNCEIGLIV GTGSNACYME EMRHIDMVEG DEGRMCINME WGAFGDDGSL NDIRTEFDQE  
 IDMGSLNPGK QLFEKMISGM YMGELVRLIL VKMAKEELLF GGKLSPELLN TGRFETKDIS DIEGEKDGIR KAREVLMRLG  
 LDPTQEDCVA THRICQIVST RSASLCAATL AAVLQRIKEN KGEERLRSTI GVDGSVYKKH PHFAKRLHKT VRRLVPGCDV  
 RFLRSEDGSG KGAAMVTAVA YRLADQHRAR QKTLEHLQLS HDQLLEVKRR MKVEMERGLS KETHASAPVK MLPTYVCATP  
 DGTEKGDFLA LDLGGTNFRV LLVRVRNGKW GGVEMHNKIY AIPQEVMHGT GDELFDHIVQ CIADFLEYMG MKGVSLPLGF  
 TFSFPCQNS LDESILLKWT KGFKASGCEG EDVVTLLKEA IHRREEFDLD VVAVVNDTVG TMMTCGFEDP HCEVGLIVGT  
 GSNACYMEEM RNVELVEGEE GRMVCNMEWG AFGDNGCLDD FRTEFDVAVD ELSLNPQKQR FEKMISGMYL GEIVRNILID  
 FTKRGLLFRG RISERLKTRG IFETKFLSQI ESDCLALLQV RAILQHLGLE STCDDSIIVK EVCTVVARRA AQLCGAGMAA  
 VVDRIRENRG LDALKVTVGV DGTLYKLHPH FAKVMHETVK DLAPKCDVSF LQSEDGSGKG AALITAVACR IREAGQR

## General References

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

## DATA

### SDS-PAGE



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