Product information

Hexokinase 2, 1-917 aa

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

Cat. No. IBHXK0703

Synonyms: Hexokinase type II, Muscle form hexokinase, HK2 **NCBI Accession No.:** NP_000180

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. 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.

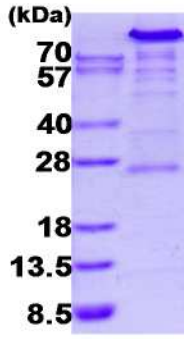
Form: Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

Molecular Weight: 104.1kDa (937aa)

Purity: > 85% by SDS - PAGE

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

Biological activity: Specific activity is > 12,000 pmol/min/ug. One unit will convert 1 pmoles of D-Glucose to D-Glucose-6-phosphate per minute at pH8.0 at 37C.



12% SDS-PAGE (3ug)

Sequences of amino acids:

MGSSHHHHHH SSGLVPRGSH MIASHLLAYF FTELNHDQVQ KVDQYLYHMR LSDETLLEIS 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 TFSFPCQQNS
LDESILLKWT KGFKASGCEG EDVVTLLKEA IHRREEFDLD VVAVVNDTVG TMMTCGFEDP HCEVGLIVGT GSNACYMEEM RNVELVEGEE
GRMCVNMEWG AFGDNGCLDD FRTEFDVAVD ELSLNPGKQR 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.

Bergmeyer, H.U., Grassl, M., and Walter, H.E. (1993) in Methods of Enzymatic Analysis (Bergmeyer, H.U. ed) 3rd ed., Volume ll, 222-223, Verlag Chemie, Deerfield Beach, FL

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.

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