

## 32-3030: HK-2 Recombinant Protein

**Alternative Name :** Hexokinase-2, EC 2.7.1.1, HK2, Hexokinase type II, HK II, Muscle form hexokinase, HXK2, DKFZp686M1669.

### Description

Source : Escherichia Coli. HK2 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain (aa 1-917) fused to a 20 His tag at the N-terminal encoding the sequence of 937 amino acids in total and having a molecular mass of 104.1 kDa. HXK2 is purified by proprietary chromatographic techniques. Hexokinases phosphorylate glucose to produce glucose-6-phosphate, thus committing glucose to the glycolytic pathway. Hexokinase 2 is the predominant form found in skeletal muscle. It localizes to the outer membrane of mitochondria. Expression of this gene is insulin-responsive, and studies in rat suggest that it is involved in the increased rate of glycolysis seen in rapidly growing cancer cells.

### Product Info

**Amount :** 10 µg  
**Purification :** Greater than 85.0% as determined by SDS-PAGE.  
**Content :** The protein (1mg/ml) contains 20mM Tris-HCl pH8.0 and 10% glycerol.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MIASHLLAYF FTELNHQVQ KVDQYLYHMR LSDETLLEIS KRFRKEMEKG LGATHTPTAA VKMLPTFVRS TPDGTEHGEF LALDLGGTNF RVLWVKVTDN GLQKVEMENQ IYAIPEDIMR GSGTQLFDHI AECLANFMDK LQIKDKKLPL GTFSPCHQTKLDESFLVS WTKGFKSSGV EGRDVVALIR KAIQRRGDFD IDIVAVVNDT VGTMMTCGYD DHNCEIGLIV GTGSNACYPE EMRHIDMVEG DEGRMCINME WGAFGDDGSL NDIRTEFDQE IDMGSLNPGK QLFKEMISGM YMGELVRLIL VKMAKEELLF GKKLSPELLN TGRFETKDISDIEGEKDGIR KAREVLMRLG LDPTQEDCVA THRICQIVST RSASLCAATL AAVLQRIKENKGEERLRSTI GVDGSVYKKH PHFAKRLHKT VRRLLVPGCDV RFLRSEDGSG KGAAMVTAVAYRLADQHRAR QKTLEHLQLS HDQLLEVKRR MKVEMERGLS KETHASAPVK MLPTYVCATPDGTEKGDFLA LDLGGTNFRV LLVRVRNGKW GGVEMHNKIY AIPQEVMHGT GDELFDHIVQ CIADFLEYMG MKGVSLPLGF TFSFPCQNS LDESILLKWT KGFKASGCEG EDVVTLLKEA IHRREEDLD VVAVVNDTVG TMMTCGFEDP HCEVGLIVGT GSNACYPEEM RNVELVEGEE GRMCMNMEWG AFGDNGCLDD FRTEFDVAVD ELSLNPQKQR FEKMISGMYL GEIVRNILID FTKRGLLFRG RISERLKTGRG IFETKFLSQI ESDCLALLQV RAILQHLGLE STCDDSIIVK EVCTVARRA AQLCGAGMAA VVDRIENRG LDALKVTVGV DGTLYKLPH FAKVMHETVK DLAPKCDVSF LQSEDGSGKG AALITAVACR IREAGQR.

### Application Note

Specific activity is 3-4 units/ml obtained by measuring the increase of NADPH in absorbance at 340 nm resulting from the reduction of NADP. In the coupled mode, one unit will produce 1.0 umole of NADPH per minute as glucose is phosphorylated by ATP at pH 7.4 at 30C.

