

Product datasheet for **AR09039PU-N**

Hexokinase-2 (1-917, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Hexokinase-2 (1-917, His-tag) human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSSLVPRGSH</u> MIASHLLAYF FTELNHDQVQ KVDQYLYHMR LSDETLLEIS KRFRKEMEKG LGATTHTPTAA VKMLPTFVRS TPDGTEHGEF LALDLGGTNF RVLWVKVTDN GLQKVEMENQ IYAIPEIDIMR GSGTQLFDHI AECLANFMDK LQIKDKKLPL GFTFSFPCHQ TKLDESFLVS WTKGFKSSGV EGRDVVALIR KAIQRRGDFD IDIVAVVNDT VGTMMTCGYD DHNCEIGLIV GTGSNACYME EMRHIDMVEG DEGRMCINME WGAFGDDGSL NDIRTEFDQE IDMGSLNPGK QLFKEMISGM YMGELVRLIL VKMAKEELLF GGKLSPELLN TGRFETKDIS DIEGEKDGIR KAREVLMRLG LDPTQEDCVA THRICQIVST RSASLCAATL AAVLQRIKEN KGEERLRSTI GVDGSVYKKH PHFAKRLHKT VRRLLVPGCDV RFLRSEDGSG KGAAMVTAVA YRLADQHRAR QKTLEHLQLS HDQLLEVKRR MKVEMERGLS KETHASAPVK MLPTYVCATP DGTEKGDFLA LDLGGTNFRV LLVRVRNGKW GGVEMHNIY AIPQEVMHGT GDELFDHIVQ CIADFLEYMG MKGVSPLPLGF TFSFPCQQNS LDESILLKWT KGFKASGCEG EDVVTLLKEA IHRREEFDLD VVAVVNDTVG TMMTCGFEDP HCEVGLIVGT GSNACYMEEM RNVELVEGEE GRMVCVNMEWG AFGDNGCLDD FRTEFDVAVD ELSLNPNGKQR FEKMISGMYL GEIVRNILID FTKRGLLFRG RISERLKTRG IFETKFLSQI ESDCLALLQV RAILQHLGLE STCDDSIIVK EVCTVVARRA AQLCGAGMAA VVDRIENRG LDALKVTVGV DGTLYKLPHF FAKVMHETVK DLAPKCDVSF LQSEDGSGKG AALITAVACR IREAGQR
Tag:	His-tag
Predicted MW:	104.1 kDa
Concentration:	lot specific
Purity:	>90% by SDS PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl pH 8.0, 10% glycerol
Bioactivity:	Specific: 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 30°C.
Preparation:	Liquid purified protein



[View online »](#)

Applications:	Protocol: Activity Assay <ol style="list-style-type: none">1. Prepare a 2.57 ml reaction mixture into a suitable container: The final concentrations are 39mM triethanolamine, 216 mM D-glucose, 0.74mM ATP, 7.8 mM MgCl₂, 1.1 mM beta-NADP, 2.5 units G6PD.2. Equilibrate to 25°C and monitor the A340nm until the value is constant using a spectrophotometer.3. Add 5ug of recombinant hexokinase2 into reaction mixture and mix immediately.4. Record the increase in A340nm for 5 minutes.
Protein Description:	Recombinant human Hexokinase 2, fused to His tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_000180
Locus ID:	3099
UniProt ID:	P52789
Cytogenetics:	2p12
Synonyms:	HKII; HXK2
Summary:	Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes hexokinase 2, 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. [provided by RefSeq, Apr 2009]
Protein Families:	Druggable Genome
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Fructose and mannose metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, Starch and sucrose metabolism, Type II diabetes mellitus

Product images:

