

Recombinant Human Hexokinase 3,His-tagged

Cat. No. HK3-42H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Hexokinase3, fused to His tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques,101.1kDa (943aa).
Species	Human
Source	E.coli
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. Hexokinase3 lacks the hydrophobic N-terminal sequence critical for targeting to mitochondria. Hexokinase3 may have anabolic functions, providing H6P for glycogen or lipid synthesis.
Sequences of amino acids	MGSSHHHHH SSGLVPRGSH MDSIGSSGLR QGEETLSCSE EGLPGPSDSS ELVQECLQQF KVTRAQLQQI QASLLGSMEQ ALRGQASPAP AVRMLPTYVG STPHGTEQGD FVVLELGATG ASLRVLWVTL TGIEGHRVEP RSQEFVIPQE VMLGAGQQLF DFAAHCLSEF LDAQPVNKQG LQLGFSFSFP CHQTGLDRST LISWTKGFRC SGVEGQDVVQ LLRDAIRRQG AYNIDVVAVV NDTVGTMMGC EPGVRPCEVG LVVDTGTNAC YMEEARHVAV LDEDRGRVCV SVEWGSFSDD GALGPVLTTF DHTLDHESLN PGAQRFEKMI GGLYLGELVR LVLAHLARCG VLFGGCTSPA LLSQGSILLE HVAEMEDPST GAARVHAILQ DLGLSPGASD

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VELVQHVCAA VCTRAAQLCA AALAAVLSC L QHSREQQTLQ VAVATGGRVC
 ERHPRFCSVL QGTVMLLAPE CDVSLIPSVD GGGRGVAMVT AVAARLAAHR
 RLLEETLAPF RLNHDQLAAV QAQMRKAMAK GLRGEASSLR MLPTFVRATP
 DGSEGRDFLA LDLGGTNFRV LLVRVTTGVQ ITSEIYSIPE TVAQGSQQQL
 FDHIVDCIVD FQQKQGLSGQ SLPLGFTFSF PCRQLGLDQG ILLNWTGFK
 ASDCEGQDVV SLLREAITRR QAVELNVVAI VNDTVGTMMMS CGYEDPRCEI
 GLIVGTGTNA CYMEELRNVA GVPGDSEGRMC INMEWGAFGD DGSLAMLSTR
 FDASVDQASI NPGKQRFKEM ISGMYLGEIV RHILLHLTSL GVLFRGQQIQ
 RLQTRDIFKT KFLSEIESDS LALRQVRAIL EDLGLPLTSD DALMVLEVQC
 AVSQRAAQLC GAGVAAVVEK IRENRGLEEL AVSVGVDTGL YKLHPRFSSL
 VAATVRELAP RCVVTFLQSE DGSGKGAALV TAVACRLAQL TRV

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

Purity > 95% by SDS - PAGE

Concentration 1 mg/ml (determined by Bradford assay)

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.

GENE INFORMATION

Gene Name [HK3 hexokinase 3 \(white cell\) \[Homo sapiens \]](#)

Synonyms Hexokinase-3; EC 2.7.1.1; Hexokinase type III; HK III; HXK3; HK3; ATP:D-hexose 6-phosphotransferase; hexokinase 3; hexokinase 3 (white cell); HK-3

Gene ID [3101](#)

mRNA Refseq [NM_002115](#)

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Protein Refseq	NP_002106
MIM	142570
UniProt ID	P52790
Chromosome Location	5q35.2
Pathway	Aminosugars metabolism; Fructose and mannose metabolism; Galactose metabolism; Glycolysis / Gluconeogenesis; Starch and sucrose metabolism; Streptomycin biosynthesis; Metabolism of carbohydrates
Function	ATP binding; hexokinase activity; kinase activity; nucleotide binding; transferase activity

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