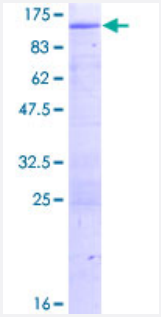
Full-Length

# HK3 (Human) Recombinant Protein (P01)

Catalog # H00003101-P01 Size 25 ug, 10 ug

## Applications




## Specification

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| **Product Description** | Human HK3 full-length ORF ( AAH28129.1, 1 a.a. - 923 a.a.) recombinant protein with GST-tag at N-terminal. |
| **Sequence** | MDSIGSSGLRQGEETLSCSEEGLPGPSDSSELVQECLQQFKVTRAQLQQIQASLLGSMEQALRG QASPAPAVRMLPTYVGSTPHGTEQGDFVVLELGATGASLRVLWVTLTGIEGHRVEPRSQEFVIPQ EVMLGAGQQLFDFAAHCLSEFLDAQPVNKQGLQLGFSFSFPCHQTGLDRSTLISWTKGFRCSGV EGQDVVQLLRDAIRRQGAYNIDVVAVVNDTVGTMMGCEPGVRPCEVGLVVDTGTNACYMEEAR HVAVLDEDRGRVCVSVEWGSFSDDGALGPVLTTFDHTLDHESLNPGAQRFEKMIGGLYLGELVR LVLAHLARCGVLFGGCTSPALLSQGSILLEHVAEMEDPSTGAARVHAILQDLGLSPGASDVELVQ HVCAAVCTRAAQLCAAALAAVLSCLQHSREQQTLQVAVATGGRVCERHPRFCSVLQGTVMLLA PECDVSLIPSVDGGGRGVAMVTAVAARLAAHRRLLEETLAPFRLNHDQLAAVQAQMRKAMAKG LRGEASSLRMLPTFVRATPDGSERGDFLALDLGGTNFRVLLVRVTTGVQITSEIYSIPETVAQGSG QQLFDHIVDCIVDFQQKQGLSGQSLPLGFTFSFPCRQLGLDQGILLNWTKGFKASDCEGQDVVSL LREAITRRQAVELNVVAIVNDTVGTMMSCGYEDPRCEIGLIVGTGTNACYMEELRNVAGVPGDSG RMCINMEWGAFGDDGSLAMLSTRFDASVDQASINPGKQRFEKMISGMYLGEIVRHILLHLTSLGVL FRGQQIQRLQTRDIFKTKFLSEIESDSLALRQVRAILEDLGLPLTSDDALMVLEVCQAVSQRAAQL CGAGVAAVVEKIRENRGLEELAVSVGVDGTLYKLHPRFSSLVAATVRELAPRCVVTFLQSEDGS GKGAALVTAVACRLAQLTRV |
| **Host** | Wheat Germ (in vitro) |
| **Theoretical MW (kDa)** | 125.4 |

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| **Interspecies Antigen Sequence** | Mouse (85); Rat (85) |
| **Preparation Method** | *in vitro* wheat germ expression system |
| **Purification** | Glutathione Sepharose 4 Fast Flow |
| **Quality Control Testing** | 12.5% SDS-PAGE Stained with Coomassie Blue. |
| **Storage Buffer** | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer. |
| **Storage Instruction** | Store at -80°C. Aliquot to avoid repeated freezing and thawing. |
| **Note** | Best use within three months from the date of receipt of this protein. |

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — HK3

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|---|---|
| **Entrez GeneID** | 3101 |
| **GeneBank Accession#** | BC028129.1 |
| **Protein Accession#** | AAH28129.1 |
| **Gene Name** | HK3 |
| **Gene Alias** | HKIII, HXK3 |
| **Gene Description** | hexokinase 3 (white cell) |
| **Omim ID** | 142570 |
| **Gene Ontology** | Hyperlink |

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| **Gene Summary** | Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes hexokinase 3. Similar to hexokinases 1 and 2, this allosteric enzyme is inhibited by its product glucose-6-phosphate. [provided by RefSeq |
| **Other Designations** | ATP:D-hexose 6-phosphotransferase\|hexokinase 3 |

## Pathway

- Amino sugar and nucleotide sugar metabolism
- Biosynthesis of alkaloids derived from histidine and purine
- Biosynthesis of alkaloids derived from ornithine
- Biosynthesis of alkaloids derived from shikimate pathway
- Biosynthesis of alkaloids derived from terpenoid and polyketide
- Biosynthesis of phenylpropanoids
- Biosynthesis of plant hormones
- Biosynthesis of terpenoids and steroids
- Fructose and mannose metabolism
- Galactose metabolism
- Glycolysis / Gluconeogenesis
- Insulin signaling pathway
- Metabolic pathways
- Starch and sucrose metabolism
- Streptomycin biosynthesis
- Type II diabetes mellitus