

## Product datasheet for PH300464

### Hexokinase 1 (HK1) (NM\_000188) Human Mass Spec Standard

#### Product data:

|                                       |                                                                     |
|---------------------------------------|---------------------------------------------------------------------|
| Product Type:                         | Mass Spec Standards                                                 |
| Description:                          | HK1 MS Standard C13 and N15-labeled recombinant protein (NP_000179) |
| Species:                              | Human                                                               |
| Expression Host:                      | HEK293                                                              |
| Expression cDNA Clone or AA Sequence: | RC200464                                                            |
| Predicted MW:                         | 102.3 kDa                                                           |
| Protein Sequence:                     | >RC200464 representing NM_000188<br>Red=Cloning site Green=Tags(s)  |

MIAAQLLAYFTELKDDQVKKIDKLYAMRLSDETLIDIMTRFRKEMKNGLSRDFNPTATVKMLPTFVRS  
IPDGSEKGFIALDLGGSSFRILRVQVNHEKNQNVHMESEVYDTPENIVHSGSQFLFDHVAECLGDFMEK  
RKIKDKKLPVGFTFSPCQQSKIDEAILITWTKRFKASGVEGADVVKLLNKAIKKRGDYDANIVAVVNDT  
VGTMMTCGYDDQHCEVGLIIGTGTNACYMEELRHIDLVEGDEGRMCINTEWGAFGDDGSLEDIRTEFDRE  
IDRGS LNPGKQLFEK MVSGMYLGELVRLILVKMAKEGLLFEGRITPELLTRGKFNTSDVSAIEKNKEGLH  
NAKEILTRLGVEPSDDDCVSVQHVCTIVSFRSANLVAATLGAILNRLRDNKGTPLRRTTVGVDGSLYKTH  
POYSRRFHKTLRRLVPDSVRFLLSESGSGKGAAMVTAVAYRLAEQHRQIEETLAHFHLTKDMLLEVKKR  
MRAEMELGLRKQTHNNNAVVKMLPSFVRRTPDGTENGDFLALDLGGTNFRVLLVKIRSGKKRTVEMHNKIY  
AIPIEIMQGTGEELFDHIVSCISDFLDYMGIKGPRMPLGFTFSFPCQQTSLDAGILITWTKGFKATDCVG  
HDVVTLLRDAIKRREFDLDVVAVVNDTVGTMTCAYEEPTCEVGLIVGTGSNACYMEEMKNVEMVEGDQ  
GQMCINMEWGAFGDNGCLDDIRTHYDRLVDEYSLNAGKQRYEKMISGMYLGEIVRNILIDFTKKGF LFRG  
QISETLKTGRGIFETKFLSQIESDRLALLQVRAILQQLGLNSTCDDSI LKTVCGVVSRRAAQLCGAGMAA  
VVDKIRENRGLDRLNVTVGVDGTLYKLPHPFSRIMHQTVKELSPKCNVSFLLSEGGSGKGAALITAVGVR  
LRTEASS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

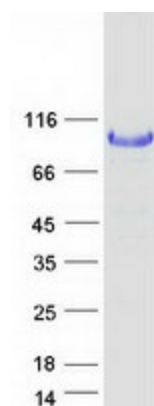
|                  |                                                                                                                                                                          |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tag:             | C-Myc/DDK                                                                                                                                                                |
| Purity:          | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                                              |
| Concentration:   | >0.05 µg/µL as determined by microplate BCA method                                                                                                                       |
| Labeling Method: | Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine |
| Buffer:          | 25 mM Tris-HCl, 100 mM glycine, pH 7.3                                                                                                                                   |
| Storage:         | Store at -80°C. Avoid repeated freeze-thaw cycles.                                                                                                                       |
| Stability:       | Stable for 3 months from receipt of products under proper storage and handling conditions.                                                                               |



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|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RefSeq:           | <a href="#">NP_000179</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RefSeq Size:      | 3580                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| RefSeq ORF:       | 2751                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Synonyms:         | hexokinase; HK; HK1-ta; HK1-tb; HK1-tc; HKD; HKI; HMSNR; HXK1; NEDVIBA; RP79                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Locus ID:         | 3098                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| UniProt ID:       | <a href="#">P19367</a> , <a href="#">Q59FD4</a> , <a href="#">B3KXY9</a> , <a href="#">A8K7J7</a>                                                                                                                                                                                                                                                                                                                                                                                                          |
| Cytogenetics:     | 10q22.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Summary:          | Hexokinases phosphorylate glucose to produce glucose-6-phosphate, the first step in most glucose metabolism pathways. This gene encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this gene have been associated with hemolytic anemia due to hexokinase deficiency. Alternative splicing of this gene results in several transcript variants which encode different isoforms, some of which are tissue-specific. [provided by RefSeq, Apr 2016] |
| 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:



Coomassie blue staining of purified HK1 protein (Cat# [TP300464]). The protein was produced from HEK293T cells transfected with HK1 cDNA clone (Cat# [RC200464]) using MegaTran 2.0 (Cat# [TT210002]).