

Product datasheet for **SC127376**

Hexokinase 1 (HK1) (NM_000188) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hexokinase 1 (HK1) (NM_000188) Human Untagged Clone
Tag:	Tag Free
Symbol:	Hexokinase 1
Synonyms:	hexokinase; HK; HK1-ta; HK1-tb; HK1-tc; HKD; HKI; HMSNR; HXK1; NEDVIBA; RP79
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC127376 sequence for NM_000188 edited (data generated by NextGen Sequencing)

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ATGATCGCCGCGCAGCTCCTGGCCTATTACTTCACGGAGCTGAAGGATGACCAGGTCAA
AAGATTGACAAGTATCTGTATGCCATGCGGCTCTCCGATGAAACTCTCATAGATCATG
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TGATCTCTGACTTCTTGGACTACATGGGATCAAAAGGCCCCAGGATGCCTCTGGGCTTC
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GAACTGTACCAAAAATGTAACGTGCTCTCCTCCTGTCTGAGGATGGCAGCGGCAAGGGG
GCCGCCCTCATCACGGCCGTGGGCGTGGGTTACGCACAGAGGCAAGCAGCTAA

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Clone variation with respect to NM_000188.2
78 c=>g;1443 g=>a

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_000188 unedited</p> <pre> AATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCAGGGCTGCGGAGGACCGA CCGTCCCCACGCCTGCCGCCCGCGACCCCGACCCAGCATGATCGCCGCGCAGCTCCT GGCCTATTACTTCACGGAGCTGAAGGATGACCAGGTCAAAAAGATTGACAAGTATCTGTA TGCCATGCGGCTCTCCGATGAACTCTCATAGATATCATGACTCGCTTCAGGAAGGAGAT GAAGAATGGCCTCTCCCGGATTTAATCCAACAGCCACAGTCAAGATGTTGCCAACATT CGTAAGGTCATTCCCTGATGGCTCTGAAAAGGGAGATTTTCATGGCCCTGGATCTTGGTGG GTCTTCTTTTTCGAATTCGCGGGTGCAAGTGAATCATGAGAAAAACCAGAATGTTACAT GGAGTCCGAGGTTTATGACACCCAGAGAACATCGTGCACGGCAGTGGAAGCCAGCTTTT TGATCATGTTGCTGAGTGCCTGGGAGATTTTCATGGAGAAAAGGAAGATCAAGGACAAGAA GTTACCTGTGGGATTCACGTTTTCTTTTCTTGGCAACAATCCAAAATAGATGAGGCCAT CCTGATCACCTGGACAAAGCGATTTAAAGCGAGCGGAGTGAAGGAGCAGATGTGGTCAA ACTGCTTAACAAAGCCATCAAAAAGCGAGGGGACTATGATGCCAACATCGTAGCTGTGGT GAATGACACAGTGGGCACCATGATGACCTGTGGCTATGACGACCAGCACTGTGAAGTCGG CCTGATCATCGGCACTGGCACCAATGCTTGCTACATGGANGAACGANGCACATCTGATC TGNTGAAATGAGACNANGNATGNATGTGTATCANTACAGAATGGGGAGCCTTNGAGAC GATGATCATTAAAGAATCGGAACGATTNGAAGGNAGAGAACNGNGATCCTCACCTGGA AACGCTGTTGAGAGATGTCATGA </pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_000188 unedited</p> <pre> AGAGTCGAGTTTTTTTTTTTTTTTTTTTGAATTGGTACAAAAGTTTACTAGGTCATACGACA CGGCTCACAAAGCGGTGGGAAATTCAGTGATGGCATTGTTTGTGGTTGGTTCCTTTTTA TCCAAATGGAGACAAGACACATTTCCGCAGGACTGTCCACCTCCCCCAGAGACAAACA GAATGCAAGACTGTCACACGCGGCTAGGACTGGTTCCACGGACACACGATTTTGTGGCAT TGACACACCACGATGCGATGCCAGGCCACAGTGGGTGCCAGGAGGGGAGGAAGCAGCTAA TGCTATGCCCACACTCGCCTTCAGGCAGTCCCCCGGGAGGGAGGCCCGGCAGTGTCTGC TGGTGATAATACATTTACACAGGGAGGGGGAACCCCAAGGATGGGCTTTGGAGGCCAG AAGGCCTGTCAGGTGGTGTGATTTTCCATCTCCAGCCAATAAATAACTCTGTTGGATGAA TGCATACATTAGAAATGGATGCCACTACACTTACACGTGGGGGACCAGGTCAAAATCAA ACCATGCAAAAGTGGCAGGGCAAGTGAAGGAGGATCCGGGTGAGAGATATTATCAACAGCA CAGCTCTATTCTGTACCCTACANTTATACCATTAGTTGGATTTTGTCTTTCTCCCCGCG CCGGCAGCCCTGCCGCCGCTCTTCCAGGGCAACTTGTGGGAGGGTAGGGGGTCCCCGT TGAAAAAGAAATTGCTGGAAAGCAATATGCTGGGATTCGACTTTAACTGGTGCCCTTGG CTTACCGCCCCCAGCCGGGAGAAAGCCGCCCTTGGCGTGGCTTTTANAACGGGGAAGA ACCGTTACTTTGGGGACGGCCTTCCCCTTGGGCCTTAACTCGAAAAAGTGGAGAACTTGT AAAGGCCCTCACTCCCCAGACATTTAAACGGCCAGCCTGGTGTGGGATTTATCAACCGC AACTGCTGGCCACACATGTGGCCCTTGGGACACACCCCACTTGTAAAGGATCTTCTT </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_000188
Insert Size:	3510 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_000188.1 , NP_000179.1
RefSeq Size:	3580 bp
RefSeq ORF:	2754 bp
Locus ID:	3098
UniProt ID:	P19367
Cytogenetics:	10q22.1
Domains:	hexokinase
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
Gene Summary:	<p>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]</p> <p>Transcript Variant: Variant 1 (HK1) encodes the ubiquitously expressed isoform. Its 5' end includes an exon which is unique to this transcript and which encodes a distinct N-terminus that contains the porin binding domain (PBD). The porin binding domain mediates association with the mitochondrial membrane.</p>