OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC309063

Hexokinase II (HK2) (NM_000189) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hexokinase II (HK2) (NM_000189) Human Untagged Clone
Tag:	Tag Free
Symbol:	Hexokinase II
Synonyms:	HKII; HXK2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

```
>OriGene sequence for NM_000189 edited
GAAACTCCGGCGCAGGAGTCCCGGGCTGCCGCTGGCAACATCGTGTCACCCAGCTAAGAA
AATCCGCGGGCCCGAGCCACGCGCCTGTGAATCGGAGAGGTCCCACTGCCCGAGTGGAGC
CGGGCTGAGATTCTTCTCAAGTTGAGCCTCAGTGATCCTGTGGCCGAAGTTAGCGCCTTG
ACGTGGGACAACCGGACACGTCGCCAGGACAGAACTGAGGCGCCTTCTAGCAGTTGTGAC
GCCAAAATCACGTCTCCGGAGACCCGCGCCCTCCGCCAGCCGGGCGCACCCTCGCCGGTA
GCCTTCTTTGTGCGCCGTCCGGACTCCCAGCTCCCGGCCCGGCAGCCGAGCCCCAGCACA
AAGCAGTCGGACCGCGCCGCCCGCCTCCCCTCTCGCGTCTCCGCCTCGGTTTCCCAACTC
TGCGCCGTCGGGCCGCGGCAGGATGATTGCCTCGCATCTGCTTGCCTACTTCTTCACGGA
GCTCAACCATGACCAAGTGCAGAAGGTTGACCAGTATCTCTACCACATGCGCCTCTCTGA
TGAGACCCTCTTGGAGATCTCTAAGCGGTTCCGCAAGGAGATGGAGAAAGGGCTTGGAGC
CACCACTCACCCTACTGCAGCAGTGAAGATGCTGCCCACCTTTGTGAGGTCCACTCCAGA
TGGGACAGAACACGGAGAGTTCCTGGCTCTGGATCTTGGAGGGACCAACTTCCGTGTGCT
TTGGGTGAAAGTAACGGACAATGGGCTCCAGAAGGTGGAGATGGAGAATCAGATCTATGC
CATCCCTGAGGACATCATGCGAGGCAGTGGCACCCAGCTGTTTGACCACATTGCCGAATG
CCTGGCTAACTTCATGGATAAGCTACAAATCAAAGACAAGAAGCTCCCACTGGGTTTTAC
CTTCTCGTTCCCCTGCCACCAGACTAAACTAGACGAGAGTTTCCTGGTCTCATGGACCAA
GGGATTCAAGTCCAGTGGAGTGGAAGGCAGAGACGTTGTGGCTCTGATCCGGAAGGCCAT
CCAGAGGAGAGGGGACTTTGATATCGACATTGTGGCTGTGGTGAATGACACAGTTGGGAC
CATGATGACCTGTGGTTATGATGACCACAACTGTGAGATTGGTCTCATTGTGGGCACGGG
CAGCAACGCCTGCTACATGGAAGAGATGCGCCACATCGACATGGTGGAAGGCGATGAGGG
GCGGATGTGTATCAATATGGAGTGGGGGGCCTTCGGGGACGATGGCTCGCTCAACGACAT
TCGCACTGAGTTTGACCAGGAGATTGACATGGGCTCACTGAACCCGGGAAAGCAACTGTT
TGAGAAGATGATCAGTGGGATGTACATGGGGGAGCTGGTGAGGCTTATCCTGGTGAAGAT
GGCCAAGGAGGAGCTGCTCTTTGGGGGGAAGCTCAGCCCAGAGCTTCTCAACACCGGTCG
CTTTGAGACCAAAGACATCTCAGACATTGAAGGGGAGAAGGATGGCATCCGGAAGGCCCG
TGAGGTCCTGATGCGGTTGGGCCTGGACCCGACTCAGGAGGACTGCGTGGCCACTCACCG
```

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

View online »

GATCTGCCAGATCGTGTCCACACGCTCCGCCAGCCTGTGCGCAGCCACCCTGGCCGCCGT
GCTGCAGCGCATCAAGGAGAACAAAGGCGAGGAGCGGCTGCGCTCTACTATTGGGGTCGA
CGGTTCCGTCTACAAGAAACACCCCCATTTTGCCAAGCGTCTACATAAGACCGTGCGGCG
GCTGGTGCCCGGCTGCGATGTCCGCTTCCTCCGCTCCGAGGATGGCAGTGGCAAAGGTGC
AGCCATGGTGACAGCAGTGGCTTACCGGCTGGCCGATCAACACCGTGCCCGCCAGAAGAC
ATTAGAGCATCTGCAGCTGAGCCATGACCAGCTGCTGGAGGTCAAGAGGAGGATGAAGGT
AGAAATGGAGCGAGGTCTGAGCAAGGAGACTCATGCCAGTGCCCCCGTCAAGATGCTGCC
CACCTACGTGTGTGCTACCCCGGACGGCACAGAGAAAGGGGACTTCTTGGCCTTGGACCT
TGGAGGAACAAATTTCCGGGTCCTGCTGGTCCGTGTTCGGAATGGGAAGTGGGGTGGAGT
GGAGATGCACAACAAGATCTACGCCATCCCGCAGGAGGTCATGCACGGCACCGGGGACGA
GCTCTTTGACCACATTGTCCAGTGCATCGCGGACTTCCTCGAGTACATGGGCATGAAGGG
CGTGTCCCTGCCTCTGGGTTTTACCTTCTCCTTCCCCTGCCAGCAGAACAGCCTGGACGA
GAGCATCCTCCTCAAGTGGACAAAAGGCTTCAAGGCATCTGGCTGCGAGGGCGAGGACGT
GGTGACCCTGCTGAAGGAAGCGATCCACCGGCGAGAGGAGTTTGACCTGGATGTGGTTGC
TGTGGTGAACGACACAGTCGGAACTATGATGACCTGTGGCTTTGAAGACCCTCACTGTGA
AGTTGGCCTCATTGTTGGCACGGGCAGCAATGCCTGCTACATGGAGGAGATGCGCAACGT
GGAACTGGTGGAAGGAGAAGAGGGGCGGATGTGTGTGAACATGGAATGGGGGGCCTTCGG
GGACAATGGATGCCTAGATGACTTCCGCACAGAATTTGATGTGGCTGTGGATGAGCTTTC
ACTCAACCCCGGCAAGCAGAGGTTCGAGAAAATGATCAGTGGAATGTACCTGGGTGAGAT
TGTCCGTAACATTCTCATCGATTTCACCAAGCGTGGACTACTCTTCCGAGGCCGCATCTC
AGAGCGGCTCAAGACAAGGGGCATCTTTGAAACCAAGTTCTTGTCTCAGATTGAGAGTGA
CTGCCTGGCCCTGCTGCAAGTCCGAGCCATCCTGCAACACTTAGGGCTTGAGAGCACCTG
TGACGACAGCATCATTGTTAAGGAGGTGTGCACTGTGGTGGCCCGGCGGGCAGCCCAGCT
CTGTGGCGCAGGCATGGCCGCTGTGGTGGACAGGATACGAGAAAACCGTGGGCTGGACGC
TCTCAAAGTGACAGTGGGTGTGGATGGGACCCTCTACAAGCTACATCCTCACTTTGCCAA
AGTCATGCATGAGACAGTGAAGGACCTGGCTCCGAAATGTGATGTGTCTTTCCTGCAGTC
AGAGGATGGCAGCGGGAAGGGGGCGGCGCTCATCACTGCTGTGGCCTGCCGCATCCGTGA
GGCTGGACAGCGATAGAACCCCTGAAATCGGAAGGGACTTCCTCTTTCTCTCCTTCTTCC
CTGTTTTAAATTATAAGATGTCATCCCCTTGTGTCAGAGACAGACCCCTTGGCTTTTGCT
TGGCAGAGAGGACCCCACTGGACTGGGTTTTGTCTCTGCATCTCATTGTAGAGCTTGGTG
GCTGAGCTTGGCCCTATTAAGATAAATAGAGTTCCAAATAAGGATTTGTTCACATGCATC
ATAACCATTCCCATTGGTTCTCCTAAAACATGAAAATTATCTCCCTTAGTAATCCCCCTT
GCCAAATTCCATGTCCCTGTATAATTCTACAGGATGGGGACACTAATGAAGATACGGTTG
CTTCACCTTGGAGCCTGAACATGACATTTCTAAGTGGGGTGCATCCCCCAGCACTGATGT
TGTTACTGATTCTCCTGTCAGAGATCTGGGAGGTCTCCACTGAGGATGTGAGCCTGATTA
TCCTATAGGCAGACGTGGGGAGGGTGGAGGGGTGACAGTGGAGGAAAATCCATGGATATC
CACGCAGCAGCCCCTCTTTAACCTCATCTACAAGCATTTGCCCTGTGGATTCCAGCATTT
GCCATTCCTGGAATCAAGGAATCCTGAGTCTGGGCAATGAAACCAAAGCCAGGAGTTGAC
GCATCCTGCAGTTGGGCCAGCTGTCGCATCTCAGCGGGGCGCACATGTTATCCACAAGCA
ATGGACCTTTGGGGAAGGGGGAGTTTTTAGTTTGTTTTACAAATTTTTCCTGCAAAAGTG
GAATCACTGTATTTTCATTTTAATTTATATTTGAAATTTTATTTAGTTCTTGAGCATCTG
CTTCTTCATCTTGACATGTAATGAATGGTCAGTTGTACGTAATGTATTTATATGTTAATT
TGTTATGTATATAGATGTGCAAGTCTTGTCAGAATTGGCCTCAGTGTAGTTAAAGGGCAG
AAGGGGAAGATACTGACTAGTCATAGAAATACCTCATTCGCCTGTGGGAAGAGAAGGGAA
GCCTCTTCAGGGTGAGTGAATGGCAAAGCGGTTGCTTCTGGCTCCTCCTTCCCCTGTGGT
CTTGGAAGTGTGTGGAAGGCAGGGACAGAGATGGAGGCCGAGCCAATAGACTGAAGAGAC
CACAGCAATTGGCTCCTCCATCTAGAGATTTTCTTGGCAGTATTCCATGGGATGTTAAGC
AAAGGAAACCAAAGGAATCGTTTCAAATGGACTCATGGCTTAGAAATCTTTATTCTTAGG
GCAGTCAGTAGTATTCTAAAGCTTTCTGACAAGATAAAGGAAGTCACCAAAATTTCTTTT
TTTAAATTGTATCTAATCCTCAACAACAAACCAAAACAGAACAATTAAACAGCCAAATAA
AACCTCAGGGACAACATTTTTGGTGTATTTGAGCCCTCCCAGCAAGTTTCACCTTGGGTT
TGTATTTTAAATGTTTTACAAGAATTGTCCATGTGCTTCCCTAGGCTGAGCTGGCATTGG

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

TCTGCTGACCTGTTTTTGTGTTTTTCTTTTTTTTATACACAACATTTATTTCAAACTATT
GGGAGGGATGAGAGTGGCTTAAAAACTTCCATCCCTACTTTTCAAGAGTGCAGTTGATTC
TGAATCTGAAAGCCCGCCTCTGTCCTAAAATACAAACAAGCACAGACATTAAACCTGGAT
ACTATATGATAAAGAGGGATGTAACTATTGAATTGGATACAAGGATCAGAATGGAAAGAA
ACTCACGATGAAATTGAACCTGGTTTTTGTATATTTATCAAACTTGTGCTGAGAATAGTG
TCTGATTATACGACTTTTAAGCAAAGTTGGGTGTAATTAGGTGAAAACAGCCCAGGTCCT
CCCGGGAGCACAGAGGGGCTAGGGGCTGGTCCTTCTCGTTTGCTCTAGTCTTGCTTTGCT
GTCTGGTGTAGCTCCTCTGCTGCTCCCATCTGCACTAATTGACCCAAAACGTGGGTATTT
CCTGCTACACAAAAGCCAAAAGGTTTCATGTAGATTTTAGTTCACTAAAGGGTGCCCACA
AAATAGAGATTAATTTTAACTTAAATTTTAAGCTTGAAGATTAGGTACTATCTGTGAAGT
TACACTTTTTTTTTTTTTTTTAAAGGTAGAGATGTGTGTGTGTGTAGGTATTAAAGATGT
GTTGTTGGTTTCCAAAAAGGAACACTGGAAAATAAATTTTGAATGTTTATGTTCTCAGAA
TCAGGTTGACAGTCCCTTGCTGACATGGCTTTGCTTTGTGTAAATACAGTGGATCTCAAT
CTTCGGGGTGTGATGAATAGCGAATCATCTCAAATCCTTGAGCACTCAGTCTAGTGAAGA
TGTTGTCATTATGTACAATACATAACTAGTTTAATTAACTATGTGATGTTAACTATTATT
AATAAATTTTAACATTTTCCAAAATAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000189 unedited
GTTCGGATTTGNTATACGACTTACTATAGGGCGGCCGCAATCTAGAGTCGACAAGCTTGA
TATCGGTACCGGTCCGGAATTCCCGGGATATCGTCGACCCACGCGTCCGGAAACTCCGGC
GCAGGAGTCCCGGGCTGCCGCTGGCAACATCGTGTCACCCAGCTAAGAAAATCCGCGGGC
CCGAGCCACGCGCCTGTGAATCGGAGAGGTCCCACTGCCCGAGTGGAGCCGGGCTGAGAT
TCTTCTCAAGTTGAGCCTCAGTGATCCTGTGGCCGAAGTTAGCGCCTTGACGTGGGACAA
CCGGACACGTCGCCAGGACAGAACTGAGGCGCCTTCTAGCAGTTGTGACGCCAAAATCAC
GTCTCCGGAGACCCGCGCCCTCCGCCAGCCGGGCGCACCCTCGCCGGTAGCCTTCTTTGT
GCGCCGTCCGGACTCCCAGCTCCCGGCCCGGCAGCCGAGCCCCAGCACAAAGCAGTCGGA
CCGCGCCGCCCGCCTCCCCTCTCGCGTCTCCGCCTCGGTTTCCCAACTCTGCGCCGTCGG
GCCGCGGCAGGATGATTGCCTCGCATCTGCTTGCCTACTTCTTCACGGAGCTCAACCATG
ACCAAGTGCAGAAGGTTGACCAGTATCTCTACCACATGCGCCTCTCTGATGAGACCCTCT
TGGAGATCTCTAAGCGGTTCCGCAAGGAGATGGGAGAAAGGGCTTGGAGCCACCACTCAC
CCTACTGCAGCAGTGAAGATGCTGCCCACCTTTGTGAGGTCCACTCCAGATGGGACAGAA
CACGGAGAGTTCCTTGGCTCTGGATCTTGGAGGGACCCACTCCCGTGTGCTTTGGNTGAA
AAGTACGGACAATGGGCTCCAAAAGTGG

Restriction Sites: Please inquire

ACCN: NM_000189

Insert Size: 5600 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

OTI Annotation:	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
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:	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_000189.4, NP_000180.2
RefSeq Size:	7109 bp
RefSeq ORF:	2754 bp
Locus ID:	3099
UniProt ID:	P52789
Cytogenetics:	2p12
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:	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]

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US