

Product datasheet for **SC110971**

PDK3 (NM_005391) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK3 (NM_005391) Human Untagged Clone
Tag:	Tag Free
Symbol:	PDK3
Synonyms:	CMTX6; GS1-358P8.4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF sequence for NM_005391 edited
 ATGCGGCTGTTCCGGTGGCTGCTGAAGCAGCCGGTGCCCAAGCAGATCGAGCGCTACTCG
 CGCTTTTCGCCGTCGCCGCTCTCCATCAAACAATTCTGGACTTCGGGAGAGATAATGCA
 TGTGAGAAAATTATATATGTTTCTACGAAAGAACTTCTGTGCGGCTGGCTAACACA
 ATGAGAGAAGTTAATCTTCTGCCGATAATTTACTTAACCGCCCTTCAGTGGGATTGGTT
 CAGAGTTGGTATATGCAGAGTTTTCTTGAACTTTTAGAATAGAAAATAAGAGCCCTGAG
 GATCCACAGGCTTGGATAAATTTCTACAAGTTCTGATTAAGTCAGAAAATAGACACAAT
 GATGTGGTTCCTACAATGGCACAAAGGAGTGATTGAATACAAGGAGAAGTTTGGGTTTGAT
 CCTTTCATTAGCACTAACATCCAATATTTTCTGGATCGGTTTTATACCAACCGCATCTCT
 TTCCGCATGCTTATTAATCAGCACAGAAGTATCGATCCCACCTGTAACTGGCGGATGTG
 GTGAAAGATGCATATGAAACAGCCAAGATGCTGTGTGAACAGTATTACCTGGTAGCTCCA
 GAGCTGGAAGTTGAAGAATCAATGCCAAAGCGCCAGACAAACCTATTCAGGTGGTTTAT
 GTGCCCTCACATCTGTTTCATATGCTATTTGAGTTGTTCAAGAACTCAATGAGAGCGACA
 GTTGAACCTATGAAGACAGAAAAGAGGGCTACCCTGCTGTTAAAACCTCGTACTTTG
 GGTAAAGAAGACTTATCCATTAAGATCAGTGACCTAGGTGGTGGTGTCCCACTTCGAAAA
 ATAGATCGTCTTTTAACTACATGTATTCTACTGCTCCTAGACCCAGCCTGGAGCCTACC
 AGAGCTGCCCCCTTGGCTGGATTGGTTATGGTTTGCCAATTTCCCGTCTGTATGCTAGA
 TATTTTCAAGGAGATCTGAAACTGTATTCCATGGAAGGAGTGGTACTGATGCTGCTCATT
 TATTTGAAGGCTCTTCAAGTGAGTCAATTTGAGAGACTTCCAGTTTTTAATAAGTCCGCA
 TGGCGCCATTACAAGACCACGCCTGAAGCCGATGATTGGAGCAATCCCAGCAGTGAACCC
 AGGGATGCTTCAAATACAAAGCAAAACAAGTACAAGTCAAGACTAATAGAACTTTCTA
 GAGGACTGAATGCTGTGGTCTCTCTGTGAAGAAAGATTGCCTTCTGCAAGTCAAACAGA
 GAGAACTGCTTTCTCCACCTGCTCTGAGCGTGGCATCACAGTTATTCCTAGTCTTAAA
 TGTGATTTTTCTCTACCACCTGGACTTCCCAAAGAGTTTTTCTGTAGCTACTCCAG
 ATCTTCCACTAAAGTAGTAACTTTTTAATGACATCTTGCTGTGGTGTGATTGATGCCTGT
 CACCGAAGAGCACAGAGCCTCCTTACAGCTCTTGCCCTCGTACTCTCCATCTTGTAT
 CATAGCATCTGATGTCTTCAGTCTTCCAGGATTCTGTGCGCCTTCCCATTCAGATAC
 AGCAGATCGTACTGTTGCTCCTTGACCAAATACCATATTTGCCAAACCTCCACCTA
 GGGCCCTGGGACCCTGAAAGTGAAGACATCAGGTGGCCATGCCCTGATGATTTAGTCCC
 AGAGCCCTCCGTCTCCTCCGTCCTCCCTCCGCCACTCTATGATTTAGACTTTTGCCTTC
 TTCATCTGATCGGATTCTCATTGTGAGATGTGGTGACTTTCATGTTA

5' Read Nucleotide Sequence: >OriGene 5' read for NM_005391 unedited
 CCGCCCCGTTGCCGAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGC
 TCGTTTAGTGAACCGTCAGAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCG
 GCACGAGTGGCGGCTGCACCGCGGCCGAGGCCGAGATCGAGGCCGGGTGCGCGC
 TTCGCAAACGTGCCCTATCCGTGCGGCTTGGCTGCGCCAGCCCTTGCAGCCACCCGGCG
 TCTAGGCCGGTCTGTGCGCCGCCGGGAGGATGCGGCTGTTCCGGTGGCTGCTGAAGC
 AGCCGGTGCCCAAGCAGATCGAGCGCTACTCGCGCTTTTCGCCGTGCGCGCTCTCCATCA
 AACAAATCCTGGACTTCGGGAGAGATAATGCATGTGAGAAAATTATATATGTTTCTAC
 GAAAGGAATCTCTGTGCGGCTGGCTAACACAATGAGAGAAGTTAATCTTCTGCCGATA
 ATTTACTTAACCGCCCTTCAGTGGGATTGGTTCAGAGTTGGTATATGCAGAGTTTTCTG
 AACTTTTAGAATATGAAAATAAGAGCCCTGAGGATCCACAGGCTTGGATAAACTTTCTA
 CAGTTCTGATTAAGTCAAGATAGACANCATGATGTGGTTCCCTACATGGCACAAGGAG
 TGATTGGATACAANGAGAAGTTTGGGTTTATCCTTTCATTAGCACTAACATCCCATATT
 TTCTGGATCGGGTTATACCAACCGCATCTTTTTCGCATGCTTATTAATCAGCACAGAA
 GTATCGATCCCACCTGTTACGTGGCGGATGTGGTGAAGATGCTATGAAACAGCCAGATG
 CTGGTGAACAGTATACCTGGAAGCTCCGAACCTGGAGTTGAAGAATCAATGCAAACGGCC
 GAAAAACTTAAAGGTGGGTTATTTGCCCCACCCGTGTAAGGCCATTTGAGTTGG

Restriction Sites: NotI-NotI
ACCN: NM_005391

Insert Size:	3100 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
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_005391.1 , NP_005382.1
RefSeq Size:	1599 bp
RefSeq ORF:	1221 bp
Locus ID:	5165
UniProt ID:	Q15120
Cytogenetics:	Xp22.11
Domains:	HATPase_c
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary:

The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO₂. It provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle, and thus is one of the major enzymes responsible for the regulation of glucose metabolism. The enzymatic activity of PDH is regulated by a phosphorylation/dephosphorylation cycle, and phosphorylation results in inactivation of PDH. The protein encoded by this gene is one of the three pyruvate dehydrogenase kinases that inhibits the PDH complex by phosphorylation of the E1 alpha subunit. This gene is predominantly expressed in the heart and skeletal muscles. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010]

Transcript Variant: This variant (2) differs at the 3' end compared to variant 1, resulting in a shorter isoform (2) lacking the last 9 aa from the C-terminus, compared to isoform 1.