

## Product datasheet for SC322362

### 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:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for SC322362  
 GTCCTGGAGCTGCTGCTGCTGCTGCGGGTGTGCGGGCGGTCACCGCGCGCCGAGGC  
 CGAGATCGAGGCCGGGGTGC GCGCTTCGCAAACGTGCCCTATCCGTGCGGCTTGCTGCG  
 CCAGCCCTTGCGGCCACCGGGCTCTAGCGGGTCTGTGCGCCGCCCGGCGAGGATGC  
 GGCTGTTCCGGTGGCTGCTGAAGCAGCCGGTGCCCAAGCAGATCGAGCGCTACTCGCGCT  
 TTTGCGCGTGC GCGCTCTCCATCAAACAATTCCTGGACTTCGGGAGAGATAATGCATGTG  
 AGAAAACATCATATATGTTTCTACGAAAGGAACTTCCTGTGCGGCTGGCTAACACAATGA  
 GAGAAGTTAATCTTCTGCCGATAATTTACTTAACCGCCCTTCAGTGGGATTGGTTCAGA  
 GTTGGTATATGCAGAGTTTTCTGAACTTTTGAATATGAAAATAAGAGCCCTGAGGATC  
 CACAGGCTTGGATAACTTTCTACAAGTCTGATTAAGTCAAGATAGACACAATGATG  
 TGGTTCCTACAATGGCACAAGGAGTGATTGAATACAAGGAGAAGTTGGGTTTGATCCTT  
 TCATTAGCACTAACATCCAATATTTCTGGATCGGTTTTATACCAACCGCATCTCTTTCC  
 GCATGCTTATTAATCAGCACACACTTCTGTTTGGGGTGACACTAATCCTGTTTCATCCTA  
 AACACATAGGAAGTATCGATCCCACCTGTAACGTGGCGGATGTGGTGAAAGATGCATATG  
 AAACAGCCAAGATGCTGTGTGAACAGTATTACCTGGTAGCTCCAGAGCTGGAAGTTGAAG  
 AATTCAATGCCAAAGCGCCAGACAAACCTATTCAGGTGGTTTATGTGCCCTCACATCTGT  
 TTCATATGCTATTTGAGTTGTTCAAGAACTCAATGAGAGCGACAGTTGAACTCTATGAAG  
 ACAGAAAAGAGGGCTACCCTGCTGTTAAAACCCCTGTTACTTTGGGTAAGAAGACTTAT  
 CCATTAAGATCAGTGACCTAGGTGGTGGTGTCCCACTTCGAAAAATAGATCGCTTTTTTA  
 ACTACATGTATTCTACTGCTCCTAGACCCAGCCTGGAGCCTACCAGAGCTGCCCTTTGG  
 CTGGATTTGGTTATGGTTTGCCAATTTCCCGTCTGTATGCTAGATATTTTCAAGGAGATC  
 TGAAAAGTATTCCATGGAAGGAGTGGTACTGATGCTGTCAATTTATTTGAAGGCTCTTT  
 CAAGTGAGTCATTTGAGAGACTTCCAGTTTTTAAGTCCGCATGGCGCCATTACAAGA  
 CCACGCTGAAGCCGATGATTGGAGCAATCCAGCAGTGAACCCAGGGATGCTTCAAAT  
 ACAAAGCAAAACAGTAATATACCACCTGATTTCCATTACAAAGTATCTGATTTGCTGA  
 ATAAAGGTGTCCCACTCAAAAAAAAAAAAAA



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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_005391
<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_005391.1</a> , <a href="#">NP_005382.1</a>
<b>RefSeq Size:</b>	1599 bp
<b>RefSeq ORF:</b>	1221 bp
<b>Locus ID:</b>	5165
<b>UniProt ID:</b>	<a href="#">Q15120</a>
<b>Cytogenetics:</b>	Xp22.11
<b>Domains:</b>	HATPase_c
<b>Protein Families:</b>	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 CO<sub>2</sub>. 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.