

## Product datasheet for **RC227065**

### **PDK3 (NM\_001142386) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PDK3 (NM\_001142386) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** PDK3  
**Synonyms:** CMTX6; GS1-358P8.4  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC227065 representing NM\_001142386  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCGGCTGTTCCGGTGGCTGCTGAAGCAGCCGGTGCCCAAGCAGATCGAGCGCTACTCGCGCTTTTCGC  
CGTCGCCGCTCTCCATCAAACAATTCCTGGACTCGGGAGAGATAATGCATGTGAGAAAACCTCATATAT  
GTTTCTACGAAAGGAACCTCCTGTGCGGCTGGCTAACACAATGAGAGAAGTTAATCTTCTGCCGATAAT  
TACTTAAACCGCCCTCAGTGGGATTGGTTCAGAGTTGGTATATGCAGAGTTTCTTGAACCTTTTAGAAT  
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CCTTTCATTAGCACTAACATCCAATATTTCTGGATCGGTTTTATACCAACCGCATCTCTTCCGCATGC  
TTATTAATCAGCACACACTTCTGTTTGGGGTGACACTAATCCTGTTTCCTAAACACATAGGAAGTAT  
CGATCCCACCTGTAACTGGCGGATGTGGTGAAAGATGCATATGAAACAGCCAAGATGCTGTGTGAACAG  
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TGGTTTATGTGCCCTCACATCTGTTTCATATGCTATTTGAGTTGTTCAAGAACTCAATGAGAGCGACAGT  
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TTATCCATTAAGATCAGTGACCTAGGTGGTGGTGTCCCACTTCGAAAAATAGATCGTCTTTTAACTACA  
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TTTGCCAATTTCCGCTGTATGCTAGATATTTCAAGGAGATCTGAAACTGTATTCCATGGAAGGAGTG  
GGTACTGATGCTGCATTTATTTGAAGGCTCTTCAAGTGAGTCAATTTGAGAGACTTCCAGTTTTTAATA  
AGTCCGCATGGCGCCATTACAAGACCACGCTGAAGCCGATGATTGGAGCAATCCAGCAGTGAACCCAG  
GGATGCTTCAAAATACAAAGCAAAACAAGACAAGATCAAGACTAATAGAACTTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC227065 representing NM\_001142386  
Red=Cloning site Green=Tags(s)

MRLFRWLLKQVPVKQIERYSRFSPLSIKQFLDFGRDNACEKTSYMFLRKELPVRLANTMREVNLLPDN  
 LLNRPVSVGLVQSWYMQSFLELLEYENKSPEDPQVLDNFLQVLIKVRNRHNDVVPTMAQGVIEYKEKFGFD  
 PFISTNIQYFLDRFYTNRISFRMLINQHTLLFGGDTNPVHPKHIGSIDPTCNVADVVKDAYETAKMLCEQ  
 YYLVAPELEVEEFNAKAPDKPIQVYVYPSHLFHMFLFKNSMRATVELYEDRKEGYPAVKTLVTLGKED  
 LSIKISDLGGGVPLRKIDRLFNMYSTAPRPSLEPTRAAPLAGFGYGLPI SRLYARYFQGD LKLYSMEGV  
 GTDAVIY LKALSSSEFERLPVFNKSAWRHYKTTPEADDWSNPSSSEPRDASKYKAKQDKIKTNRTF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8058\\_c11.zip](https://cdn.origene.com/chromatograms/mk8058_c11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001142386

**ORF Size:** 1245 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001142386.3](#)

**RefSeq ORF:** 1248 bp

**Locus ID:** 5165

**UniProt ID:** [Q15120](#)

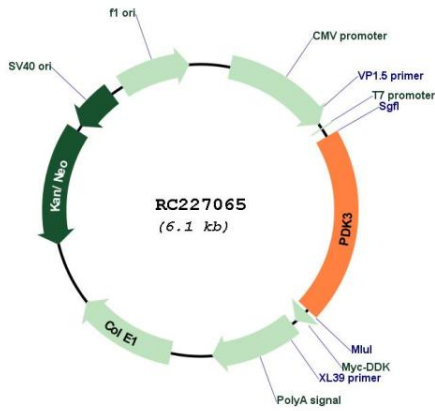
**Cytogenetics:** Xp22.11

**Protein Families:** Druggable Genome, Protein Kinase

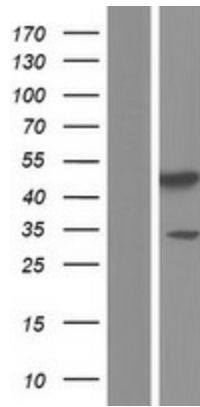
**MW:** 47.9 kDa

**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]

Product images:



Circular map for RC227065



Western blot validation of overexpression lysate (Cat# [LY428060]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227065 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).