

Product datasheet for RC202207

PDK3 (NM_005391) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK3 (NM_005391) 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:	>RC202207 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGGCTGTTCCGGTGGCTGCTGAAGCAGCCGGTGCCCAAGCAGATCGAGCGCTACTCGCGCTTTTCGC
CGTCGCCGCTCTCCATCAAACAATTCCTGGACTCGGGAGAGATAATGCATGTGAGAAAACCTCATATAT
GTTTCTACGAAAGGAACCTCCTGTGCGGCTGGCTAACACAATGAGAGAAGTTAATCTTCTGCCGATAAT
TACTTAAACCGCCCTCAGTGGGATTGGTTCAGAGTTGGTATATGCAGAGTTTCTTGAACCTTTAGAAAT
ATGAAAATAAGAGCCCTGAGGATCCACAGGTCTTGGATAACTTTCTACAAGTTCTGATTAAGTCAGAAA
TAGACACAATGATGTGGTTCCTACAATGGCACAAGGAGTGATTGAATACAAGGAGAAGTTTGGGTTTGAT
CCTTTCATTAGCACTAACATCCAATATTTCTGGATCGGTTTTATACCAACCGCATCTCTTCCGCATGC
TTATTAATCAGCACACACTTCTGTTTGGGGTGACACTAATCCTGTTTCCTAAACACATAGGAAGTAT
CGATCCCACCTGTAACTGGCGGATGTGGTGAAGATGCATATGAAACAGCCAAGATGCTGTGTGAACAG
TATTACCTGGTAGCTCCAGAGCTGGAAGTTGAAGAATCAATGCCAAAGCGCCAGACAAACCTATTCAGG
TGGTTTATGTGCCCTCACATCTGTTTCATATGCTATTTGAGTTGTTCAAGAACTCAATGAGAGCGACAGT
TGAACCTATGAAGACAGAAAAGAGGGCTACCCGTGCTGTTAAAACCTCGTTACTTTGGGTAAGAAGAC
TTATCCATTAAGATCAGTGACCTAGTGGTGGTGTCCCACTTCGAAAAATAGATCGTCTTTTAACTACA
TGTATTCTACTGCTCCTAGACCCAGCCTGGAGCCTACCAGAGCTGCCCTTTGGCTGGATTGGTTATGG
TTTGCCAATTTCCGCTGTATGCTAGATATTTCAAGGAGATCTGAAACTGTATTCCATGGAAGGAGTG
GGTACTGATGCTGCATTTATTTGAAGGCTCTTCAAGTGAGTCAATTTGAGAGACTTCCAGTTTTTAATA
AGTCCGCATGGCGCCATTACAAGACCACGCCTGAAGCCGATGATTGGAGCAATCCAGCAGTGAACCCAG
GGATGCTTCAAAATACAAAGCAAACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202207 protein sequence
Red=Cloning site Green=Tags(s)

MRLFRWLLKQVPVKQIERYSRFSPLSIKQFLDFGRDNACEKTSYMFLRKELPVRLANTMREVNLLPDN
 LLNRPVSVGLVQSWYMQSFLELLEYENKSPEDPQVLDNFLQVLIKVRNRHNDVVPTMAQGVIEYKEKFGFD
 PFISTNIQYFLDRFYTNRISFRMLINQHTLLFGGDTNPVHPKHIGSIDPTCNVADVVKDAYETAKMLCEQ
 YYLVAPELEVEEFNAKAPDKPIQVYVYVPSHLFHMFLFKNSMRATVELYEDRKEGYPAVKTLVTLGKED
 LSIKISDLGGGVPLRKIDRLFNYMYSTAPRPSLEPTRAAPLAGFGYGLPI SRLYARYFQGDCLKLYSMEGV
 GTDAVIYLKALSSSEFERLPVFNKSAWRHYKTTPEADDWSNPSSSEPRDASKYKAKQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6130_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005391

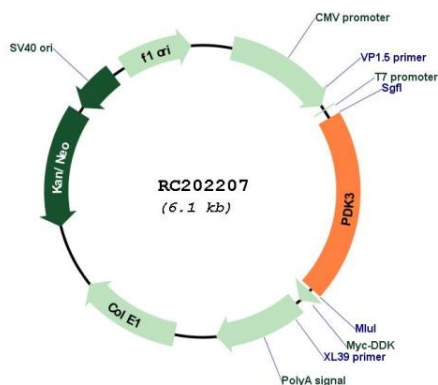
ORF Size: 1218 bp

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.

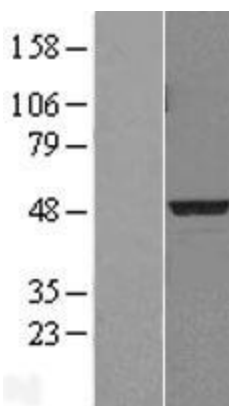
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in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

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:	<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_005391.5
RefSeq Size:	1803 bp
RefSeq ORF:	1221 bp
Locus ID:	5165
UniProt ID:	Q15120
Cytogenetics:	Xp22.11
Domains:	HATPase_c
Protein Families:	Druggable Genome, Protein Kinase
MW:	46.9 kDa
Gene Summary:	<p>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]</p>

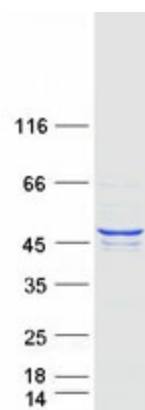
Product images:



Circular map for RC202207



Western blot validation of overexpression lysate (Cat# [LY401655]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202207 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDK3 protein (Cat# [TP302207]). The protein was produced from HEK293T cells transfected with PDK3 cDNA clone (Cat# RC202207) using MegaTran 2.0 (Cat# [TT210002]).