

Product datasheet for **MR206918**

Pdk1 (NM_172665) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pdk1 (NM_172665) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pdk1
Synonyms:	B830012B01; D530020C15Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR206918 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGCTGGCAAGGCTGCTGCGGGGCGGCACGAGCGTCAGGCCGCTCTGCGCCGCTCCCCTGCGCCAGCC
 GTAGCCTGGCCTCGGCCCTCGGGTTCGGGCCGGCGTCGGAGCTTGCGCTTCCGGGCCAGGTGGACTTCTA
 TGC GCGCTTCTCGCCGTCGCCACTCTCCATGAAGCAGTTCCTGGACTTCGGGTCACTGAATGCTTGTGAA
 AAGACCTCGTTTATGTTTCTGCGACAAGAGTTGCCTGTTAGATTGGCAAATATAATGAAAGAAATCAGCC
 TTCTCCCCGATAATCTTCTCAGGACCCCATCCGTACAGCTGGTGCAAAGTTGGTATATCCAAAGCCTTCA
 GGAGTTGCTTGATTTTAAAGACAAAAGTCTGAAGATGCTAAAATATTTATGAATTCACAGACACAGTG
 ATAAGGATCAGAAACCGGCACAATGATGTCATCCACCATTGGCCAGGGTGTGACTGAATACAAGGAGA
 GCTTCGGGGTGGATCCTGTCACCAGCCAAAATGTTCACTACTTTTGGATCGATTCTACATGAGTCGCAT
 CTCAATTAGAATGCTACTCAACCAGCACTCCTTATTGTTCCGGTGGAAAAGGAAGTCCATCTCATCGAAAG
 CACATTGGAAGCATAAATCCAAACTGCGACGTGGTGGAGGTCATTAAGATGGCTATGAGAACGCTAGGC
 GGCTTTGTGATTTGATTATGTTAACTCTCCTGAACTTGAAGTGAAGAACTAAATGCGAAATCACCAGG
 ACAGACAATACAAGTGGTTTATGTACCATCCCATCTCTATCACATGGTGTGTTGAACTGTTCAAGAATGCC
 ATGAGAGCGACCATGGAGCACCACGCGGACAAAGGCGTTTATCCCCGATTCAGGTTACAGTCACGCTGG
 GCGAGGAGGATCTGACTGTGAAGATGAGTGACCGGGGAGGCGGTGTTCCACTGAGGAAGATCGACAGACT
 CTTCAACTACATGTAACAACCGCACCCCGCCCTCGTGTGAAACGTCCCGTGTGTGCCCTGGCTGGG
 TTTGGTTACGGATTGCCCATATCACGCCCTATGCACAGTACTCCAGGGAGACCTAAAGCTGTATTCTCT
 TAGAGGGCTACGGGACAGATGCGGTTATCTACATTAAGGCTCTGTGACAGAAATCCGTCGAGAGACTCCC
 TGTGTACAATAAAGCCCGCTGGAAGCATTACAAAAGCCAACACGAGGCTGACGACTGGTGTGTGCCACG
 CGAGAGCCGAAAGATATGACCACATTCGAAGCTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR206918 protein sequence
 Red=Cloning site Green=Tags(s)

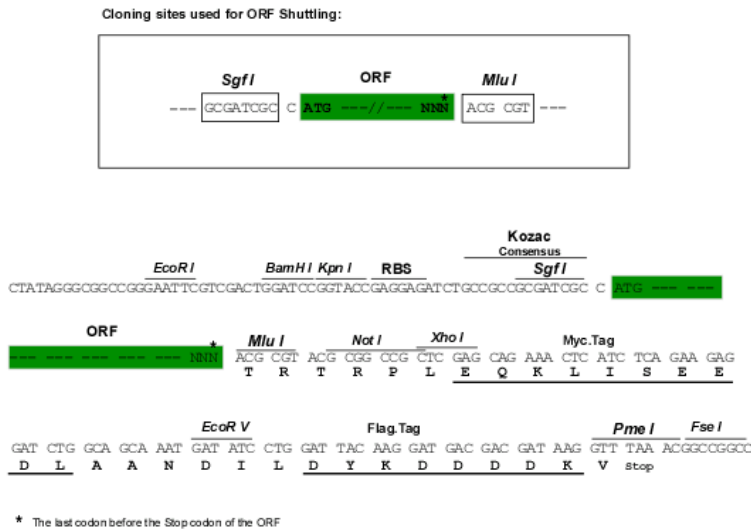
MRLARLLRGGTSVRPLCAVPCASRSLASGSGPASELGVPQVDFYARFSPSPLSMKQFLDFGSVNACE
 KTSFMFLRQELPVRLANIMKEISLLPDNLLRTPSVQLVQSWYIQSLQELLDKDKSAEDAKTIYEFDTV
 IRIRNRHNDVIPMAQGVTEYKESFGVDPVTSQNVQYFLDRFYMSRISIRMLLNQHSLFFGGKGSPIHRK
 HIGSINPNCDDVEVIKDGYNARRLCDLYVNSPELELEELNAKSPGQTIQVYVYPSHLYHMFVFLFKNA
 MRATMEHHADKGVYPIIQVHVTLGEEDLTVKMSDRGGGVPLRKIDRLFNYMYSTAPRPRVETSRAVPLAG
 FGYGLPISRLYAQYFQGLKLYSLEGYGTDVAIYIKALSTESVERLPVYNKAAWKHKANHEADDCVPS
 REPKDMTFRSS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_172665

ORF Size: 1299 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).

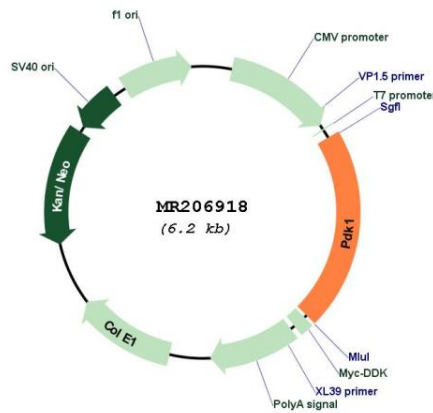
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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_172665.1](#), [NM_172665.2](#), [NM_172665.3](#), [NM_172665.4](#), [NM_172665.5](#), [NP_766253.2](#)

RefSeq Size: 5202 bp
 RefSeq ORF: 1305 bp
 Locus ID: 228026
 UniProt ID: [Q8BFP9](#)
 Cytogenetics: 2 C3
 MW: 48.8 kDa

Gene Summary: Kinase that plays a key role in regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of acetyl-coenzyme A from pyruvate. Plays an important role in cellular responses to hypoxia and is important for cell proliferation under hypoxia. Protects cells against apoptosis in response to hypoxia and oxidative stress (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206918