

Product datasheet for **MG206918**

Pdk1 (NM_172665) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pdk1 (NM_172665) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pdk1
Synonyms:	B830012B01; D530020C15Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG206918 representing NM_172665 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGCTGGCAAGGCTGCTGCGGGGGCGGCACGAGCGTCAGGCCGCTCTGCGCCGTCCCCTGCGCCAGCC
GTAGCCTGGCCTCGGCCTCGGGTCCGGGCGCGCTCGGAGCTTGGCGTCCGGGCCAGGTGGACTTCTA
TGCGCGCTTCTCGCCGTCGCCACTCTCCATGAAGCAGTTCCTGGACTTCGGGTCACTGAATGCTTGTGAA
AAGACCTCGTTTATGTTTCTGCGACAAGAGTTGCCTGTTAGATTGGCAAATAAATAAGAAAGAAATCAGCC
TTCTCCCCGATAATCTTCTCAGGACCCCATCCGTACAGCTGGTCAAAGTTGGTATATCCAAAGCCTTCA
GGAGTTGCTTGATTTTAAAGACAAAAGTCTGAAGATGCTAAAATATTTATGAATTCACAGACACAGTG
ATAAGGATCAGAAACCGGCACAATGATGTCAATCCACCATGGCCAGGGTGTGACTGAATACAAGGAGA
GCTTCGGGGTGGATCCTGTCAACAGCAAAAATGTTCACTACTTTTGGATCGATTCTACATGAGTCGCAT
CTCAATTAGAATGCTACTCAACCAGCACTCCTTATTGTTCCGGTGGAAAAGGAAGTCCATCTCATCGAAA
CACATTGGAAGCATAAATCCAACTGCGACGTGGTGGAGGTCATTAAGATGGCTATGAGAACGCTAGGC
GGCTTTGTGATTTGATTTAATGTTAACTCTCCTGAACCTGAACCTGAAGAATAAATGCGAAATCACCAGG
ACAGACAATAAAGTGGTTTATGTACCATCCCATCTCTATCACATGGTGTGTTGAACCTGTTCAAGAATGCC
ATGAGAGCGACCATGGAGCACCCACGCGGACAAAGGCGTTTATCCCCGATTCCAGTTCCAGTCCAGCTGG
GCGAGGAGGATCTGACTGTGAAGATGAGTGACCGGGGAGGCGGTTCCACTGAGGAAGATCGACAGACT
CTTCAACTACATGTACTCAACCGCACCCCGGCCTCGTGTGAAACGTCCCGTGTGTCGCCCTGGCTGGG
TTTGGTACGGATTGCCCATATCACGCCTCTATGCACAGTACTCCAGGGAGACCTAAAGCTGTATTCTT
TAGAGGGCTACGGGACAGATGCGGTTATCTACATTAAGGCTCTGTGACAGAATCCGTCGAGAGACTCCC
TGTGTACAATAAAGCCGCTGGAAGCATTACAAAGCCAACCACGAGGCTGACGACTGGTGTGTCGCCAGC
CGAGAGCCGAAAGATATGACCACATTCGAAGCTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG206918 representing NM_172665
 Red=Cloning site Green=Tags(s)

MRLARLLRGGTSVRPLCAVPCASRSLASASGSPASELGVPGQVDFYARFSPSPLSMKQFLDFGSVNACE
 KTSFMFLRQELPVRLANIMKEISLLPDNLLRTPSVQLVQSWYIQSLQELLDKDKSAEDAKTIYEFDTTV
 IRIRNRHNDVIPTMAQGVTEYKESFGVDPVTSQNVQYFLDRFYMSRISIRMLLNQHSLLFGGKGSPPSHRK
 HIGSINPNCDDVVEVIKDGYENARRLCDLYVNSPELELEELNAKSPGQTIQVVYVPSHLYHMFVLFKNA
 MRATMEHHADKGVYPIQVHVTLGEEDLTVKMSDRGGVPLRKIDRLFNMYSTAPRPRVETSRVPLAG
 FGYGLPI SRLYAQYFQGDLLKLSLEGYGTD AVIYIKALSTESVERLPVYNKA AWKHYKANHEADDWCVPS
 REPKDMTFRSS

TRTRPLE - GFP Tag - V

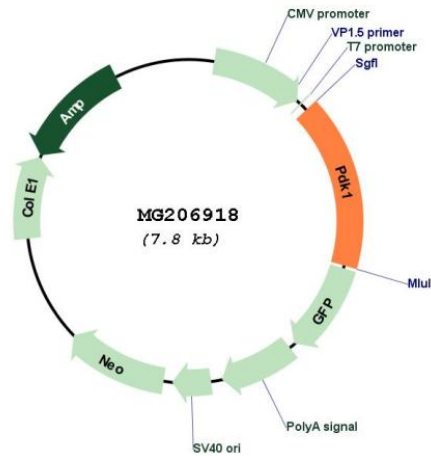
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_172665

ORF Size:	1302 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>
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_172665.2 , NP_766253.2
RefSeq Size:	3952 bp
RefSeq ORF:	1305 bp
Locus ID:	228026
UniProt ID:	Q8BFP9
Cytogenetics:	2 C3
Gene Summary:	<p>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]</p>