

## Product datasheet for **RC238334**

### **PDK1 (NM\_001278549) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDK1 (NM_001278549) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDK1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC238334 representing NM_001278549 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGCTGGCGGGCTGCTTCGCGGAGCCGCCTTGGCCGGCCCGGGCCCGGGCTGCGCGCCCGCGCT  
TCAGCCGCAGCTTCAGCTCGGACTCGGGCTCCAGCCCGGCGTCCGAGCGCGCGTTCGGGCCAGGTGGA  
CTTCTACGCGCGCTTCTCGCCGTCGCCGCTCCATGAAGCAGTTCCTGGACTTCGGATCAGTGAATGCT  
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TAAGTCTCCTTCCAGATAATCTTCTCAGGACACCATCCGTTCAATTGGTACAAAGCTGGTATATCCAGAG  
TCTTCAGGAGCTTCTTGATTTAAAGGACAAAAGTCTGAGGATGCTAAAGCTATTTATGAAAGGCCTAGA  
AGAACATGGTTGCAGGTCTCTAGTTTATGCTGTATGGCCTGCAAGATGATCTTTACAGATACTGTGATAC  
GGATCAGAAACCGACACAATGATGTCATTCCCACAATGGCCAGGGTGTGATTGAATAACAAGGAGAGCTT  
TGGGGTGGATCCTGTACCAGCCAGAATGTTCACTACTTTTGGATCGATTCTACATGAGTCGCATTTCA  
ATTAGAATGTTACTCAATCAGCACTCTTATTGTTTGGTGGAAAAGGCAAAGGAAGTCCATCTCATCGAA  
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CCTAGAGGGTTACGGGACAGATGCAGTTATCTACATTAAGGCTCTGTCAACAGACTCAATAGAAAAGACTC  
CCAGTGTATAACAAAGCTGCCTGGAAGCATTACAACCAACACGAGGCTGATGACTGGTGCCTCCCA  
GCAGAGAACCCAAAGACATGACGACGTTCCGCACTGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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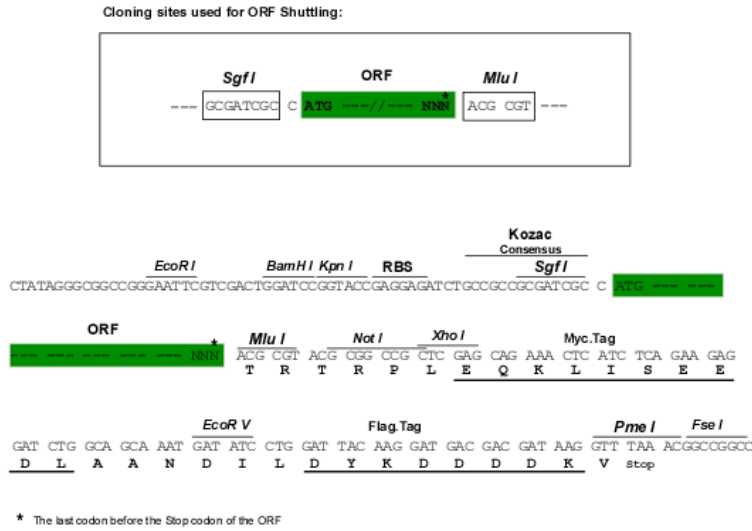
**Protein Sequence:** >RC238334 representing NM\_001278549  
Red=Cloning site Green=Tags(s)

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 CEKTSFMFLRQELPVRLANIMKEISLLPDNLLRTPSVQLVQSWYIQLQELDFDKSAEDAKAIYERPR  
 RTWLQVSSLCCMACKMIFDTVIRIRNRHNDVIPTMAQGVIEYKESFGVDPVTSQNVQYFLDRFYMSRIS  
 IRMLNQHSLLFGGKKGSPSHRKHIGSINPNCNVLEVIKDGYNARRLCDLYINSPELELEELNAKSP  
 GQPIQVVYVPSHLYHMVFELFKNAMRATMEHHANRGVYPPIQVHVTLGNEDLTVKMSDRGGVPLRKIDR  
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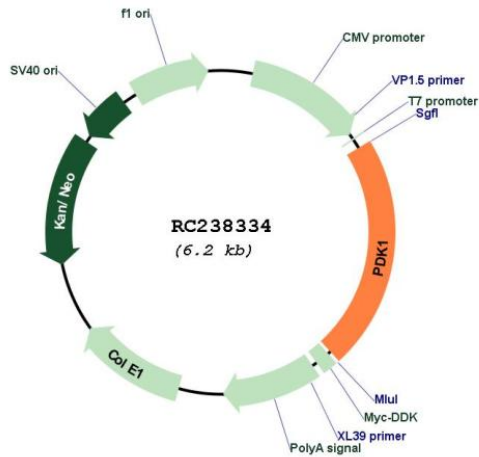
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



<b>ACCN:</b>	NM_001278549
<b>ORF Size:</b>	1368 bp
<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_001278549.2</a>
<b>RefSeq Size:</b>	4734 bp
<b>RefSeq ORF:</b>	1371 bp
<b>Locus ID:</b>	5163
<b>UniProt ID:</b>	<a href="#">Q15118</a>
<b>Cytogenetics:</b>	2q31.1
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Fc epsilon RI signaling pathway, Neurotrophin signaling pathway, T cell receptor signaling pathway
<b>MW:</b>	52.1 kDa
<b>Gene Summary:</b>	Pyruvate dehydrogenase (PDH) is a mitochondrial multienzyme complex that catalyzes the oxidative decarboxylation of pyruvate and is one of the major enzymes responsible for the regulation of homeostasis of carbohydrate fuels in mammals. The enzymatic activity is regulated by a phosphorylation/dephosphorylation cycle. Phosphorylation of PDH by a specific pyruvate dehydrogenase kinase (PDK) results in inactivation. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jun 2013]