

Product datasheet for **RG238334**

PDK1 (NM_001278549) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK1 (NM_001278549) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238334 representing NM_001278549. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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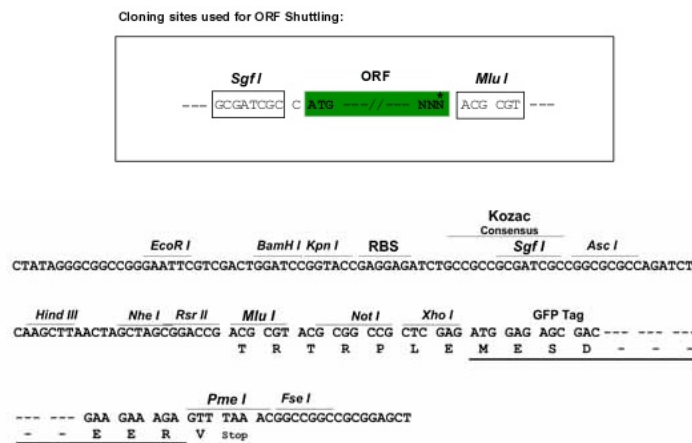
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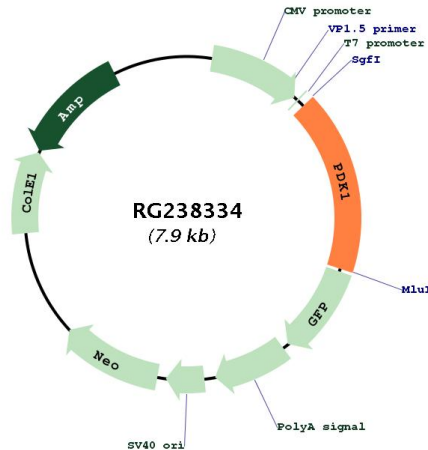
Protein Sequence: >Peptide sequence encoded by RG238334
 Blue=ORF Red=Cloning site Green=Tag(s)

MRLARLLRGAALAGPGPLRAAGFSRSFSSDSGSSPASERGVPGQVDFYARFSPSPLSMKQFLDFGSVN
 ACEKTSFMFLRQELPVRLANIMKEISLLPDNLLRTPSVQLVQSWYIQLQELDFDKSAEDAKAIYER
 PRRTWLQVSSLCCMACKMIFDTVIRIRNRHNDVIPTMAQGVIEYKESFGVDPVTSQNVQYFLDRFYMS
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 DSIERLPVYNKAAWKHNTNHEADDWCVPSPREPKDMTFRSA
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 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001278549

ORF Size: 1368 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).

RefSeq: [NM_001278549.2](#)

RefSeq Size: 4734 bp

RefSeq ORF: 1371 bp

Locus ID: 5163

UniProt ID: [Q15118](#)

Cytogenetics: 2q31.1

Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Fc epsilon RI signaling pathway, Neurotrophin signaling pathway, T cell receptor signaling pathway

MW: 52.1 kDa

Gene Summary:

Pyruvate dehydrogenase (PDH) is a mitochondrial multi-enzyme 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]