

Product datasheet for **RG205127**

PDK1 (NM_002610) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK1 (NM_002610) 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:	>RG205127 representing NM_002610 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGCTGGCGGGCTGCTTCGCGGAGCCGCCTTGGCCGGCCCGGGCCCGGGCTGCGCGCCCGCGGT
TCAGCCGAGCTTCAGCTCGGACTCGGGCTCCAGCCCGCGTCCGAGCGCGGCGTTCCGGGCCAGGTGGA
CTTCTACGCGCGCTTCTCGCCGTCGCCGCTCCATGAAGCAGTTCCTGGACTTCGGATCAGTGAATGCT
TGTGAAAAGACCTCATTATGTTTCTCGGCAAGAGTTGCCTGTCAGACTGGCAAATATAATGAAAGAAA
TAAGTCTCCTCCAGATAATCTTCTCAGGACACCATCCGTTCAATTGGTACAAAGCTGGTATATCCAGAG
TCTTCAGGAGCTTCTTGATTTAAGGACAAAAGTCTGAGGATGCTAAAGCTATTTATGACTTTACAGAT
ACTGTGATACGGATCAGAAACCGACACAATGATGTCATCCCAATGGCCAGGGTGTGATTGAATACA
AGGAGAGCTTTGGGGTGGATCCTGTCAACAGCCAGAATGTTCACTTTTGGATCGATTCTACATGAG
TCGCATTTCAATTAGAATGTTACTCAATCAGCACTCTTTATTGTTTGGTGGAAAAGGCAAAGGAAGTCCA
TCTCATCGAAAACACATTGGAAGCATAAATCCAACTGCAATGTACTTGAAGTTATTAAGATGGCTATG
AAAATGCTAGGCGTCTGTGATTTGTATTATTAATCTCCCGAACTAGAAGTGAAGAACTAAATGC
AAAATCACCAGGACAGCCAATACAAGTGGTTTATGTACCATCCCATCTCTATCACATGGTGTGTTGAAGT
TTCAAGAAATGCAATGAGAGCCACTATGGAACACCATGCCAACAGAGGTGTTTACCCCTATTCAAGTTC
ATGTCACGCTGGGTAATGAGATTTGACTGTGAAGATGAGTGACCGAGGAGGTGGCGTTCCTTTGAGGAA
AATTGACAGACTTTTCAACTACATGTATCAACTGCACCAAGACCTCGTGTGAGACCTCCCGCGCAGTG
CCTCTGGCTGGTTTGGTTATGGATTGCCCATATCACGCTTTACGCACAATACTTCCAAGGAGACCTGA
AGCTGTATTCCCTAGAGGGTTACGGGACAGATGCAGTTATCTACATTAAGGCTCTGTCAACAGACTCAAT
AGAAAGACTCCCAGTGTATAACAAAGCTGCCTGGAAGCATTACAACACCAACCACGAGGCTGATGACTGG
TGCGTCCCCAGCAGAGAACCCAAAGACATGACGACGTTCCGCAAGTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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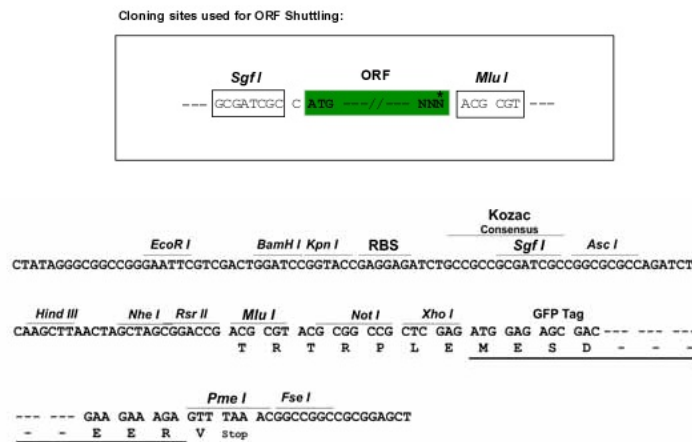
Protein Sequence: >RG205127 representing NM_002610
Red=Cloning site Green=Tags(s)

MRLARLLRGAALAGPGPLRAAGFSRSFSSDSGSSPASERGVPGQVDFYARFSPSPLSMKQFLDFGSVNA
 CEKTSFMFLRQELPVRLANIMKEISLLPDNLLRTPSVQLVQSWYIQLQELLDFKDKSAEDAKAIYDFTD
 TVIRIRNRHNDVIPTMAQGVIEYKESFGVDPVTSQNVQYFLDRFYMSRISIRMLLNQHSLFLGGKGGKSP
 SHRKHIGSINPNCNVLEVIKDGYENARRLCDLYYINSPELELEELNAKSPGQPIQVYVYPSHLYHVMVFEL
 FKNAMRATMEHHANRGVYPIQVHVTLGNEDLTVKMSDRGGGVPLRKIDRLFNMYSTAPRPRVETSRAV
 PLAGFGYGLPISRLYAQYFQGDLLKYSLEGYGTDAVIYIKALSTDSIERLPVYNKAAWKHYNNTNHEADDW
 CVPSREPKDMTFRSA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002610

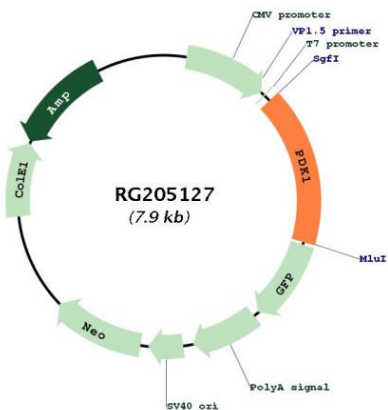
ORF Size: 1308 bp

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_002610.5
RefSeq Size:	4576 bp
RefSeq ORF:	1311 bp
Locus ID:	5163
UniProt ID:	Q15118
Cytogenetics:	2q31.1
Domains:	HATPase_c
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Fc epsilon RI signaling pathway, Neurotrophin signaling pathway, T cell receptor signaling pathway
Gene Summary:	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]

Product images:



Circular map for RG205127