

## Product datasheet for **RG201656**

### **PDK4 (NM\_002612) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PDK4 (NM_002612) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PDK4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201656 representing NM_002612 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGGCGGCCCGCTTCGTGCTGCGCAGCGCTGGCTCGCTCAACGGCGCCGGCCTGGTGCCCCGAGAGG  
TGGAGCATTCTCGCGCTACAGCCCGTCCCCGCTGTCCATGAAGCAGCTACTGGACTTTGGTTTCAGAAAA  
TGCATGTGAAAGAAGCTTTCTTTGCATTTTTCGACAAGAATTGCCTGTGAGACTCGCCAACATTCTGAAG  
GAAATTGATATCCTCCCGACCAATTAGTAAATACCTCTTCAGTGAATTGGTAAAAAGCTGGTATATAC  
AGAGCCTGATGGATTTGGTGAATTCCATGAGAAAAGCCAGATGACCAGAAAGCATTATCAGACTTTGT  
AGATACACTCATCAAAGTTCGAAATAGACACCATAATGTAGTCCCTACAATGGCACAAGGAATCATAGAG  
TATAAAGATGCCTGTACAGTTGACCCAGTCACCAATCAAATCTTCAATATTTCTTGATCGATTTTACA  
TGAACCGTATTTCTACTCGGATGCTGATGAACCAGCACATTCTTATTTAGTACTCACAGACAGGAAA  
CCCAAGCCACATTGGAAGCATTGATCCTAACTGTGATGTGGTAGCAGTGGTCCAAGATGCCTTTGAGTGT  
TCAAGGATGCTCTGTGATCAGTATTATTTATCATCTCCAGAATTAAGCTTACACAAGTGAATGGAAAAT  
TTCCAGACCAACCAATTCACATCGTGTATGTTCCCTCTCACCTCCATCATATGCTCTTTGAACTATTTAA  
GAATGCAATGCGGGCAACAGTTGAACACCAGGAAAATCAGCCTTCCCTTACACCAATAGAGGTTATTGTT  
GTCTTGGGAAAAGAAGACCTTACCATTAAGATTTAGACAGAGGAGGTGGTGTCCCTGAGAATTATTG  
ACCGCCTCTTTAGTTATACATACTCCACTGCACCAACGCCTGTGATGGATAATCCCGGAATGCTCCTTT  
GGCTGGTTTTGGTTACGGCTTGCCAATTTCTGCTGTATGCCAAGTACTTTCAAGGAGATCTGAATCTC  
TACTCTTTATCAGGATATGGAACAGATGCTATCATCTACTTAAAGGCTTTGTCTTCTGAGTCTATAGAAA  
AACTTCCAGTTTTTAACAAGTCAGCCTTCAAACATTATCAGATGAGCTCTGAGGCTGATGACTGGTGTAT  
CCCAAGCAGGGAACCAAGAACCTGGCAAAAAGAAGTGCCATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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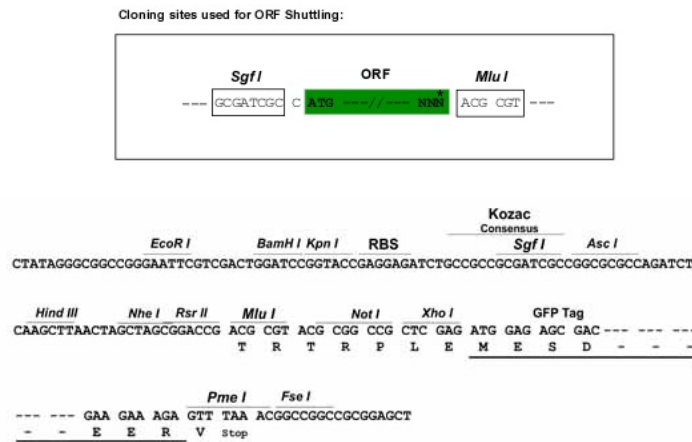
**Protein Sequence:** >RG201656 representing NM\_002612  
 Red=Cloning site Green=Tags(s)

MKAARFVLR SAGSLNGAGLVPREVEHFSRYSPSPLSMKQLLDFGSENACERTSFAFLRQELPVRLANILK  
 EIDLPTQLVNTSSVQLVKSWEIQSLMDLVEFHEKSPDDQKALSDFDVTLIKVNRHNNVPTMAQGIIE  
 YKDACTVDPVTNQNLQYFLDRFYMNRISTRMLMNQHILIFSDSQTGNPSHIGSIDPNCDDVVAVVQDAFEC  
 SRMLCDQYYLSSPELKLTVNGKFPDQPIHIVYVPSHLHHMLFELFKNAMRATVEHQENQPSLTPIEVIV  
 VLGKEDLTIKISDRGGGVPLRIIDRLFSTYSTAPTVMDNSRNAPLAGFGYGLPISRLYAKYFQGDNLN  
 YLSG YGTDAIIYLKALSSESIEKLPVFNKSAFKHYQMSSEADDWCIPSRPKNLAKEVAM

TRTRPLE – GFP Tag – V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002612

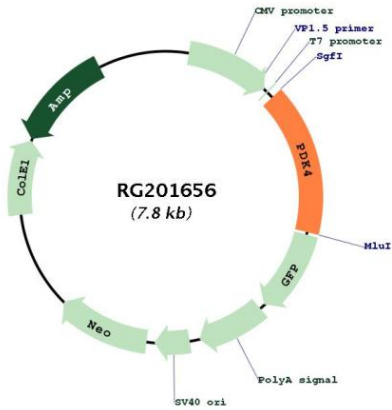
**ORF Size:** 1233 bp

**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](mailto: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](#)

<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>	<u><a href="#">NM_002612.2</a></u> , <u><a href="#">NP_002603.1</a></u>
<b>RefSeq Size:</b>	3634 bp
<b>RefSeq ORF:</b>	1236 bp
<b>Locus ID:</b>	5166
<b>UniProt ID:</b>	<u><a href="#">Q16654</a></u>
<b>Cytogenetics:</b>	7q21.3
<b>Domains:</b>	HATPase_c
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Gene Summary:</b>	This gene is a member of the PDK/BCKDK protein kinase family and encodes a mitochondrial protein with a histidine kinase domain. This protein is located in the matrix of the mitochondria and inhibits the pyruvate dehydrogenase complex by phosphorylating one of its subunits, thereby contributing to the regulation of glucose metabolism. Expression of this gene is regulated by glucocorticoids, retinoic acid and insulin. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG201656