

Product datasheet for RC201656

PDK4 (NM_002612) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK4 (NM_002612) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDK4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201656 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGGCGGCCGCTTCGTGCTGCGCAGCGCTGGCTCGCTCAACGGCGCCGGCCTGGTGCCCCGAGAGG
TGGAGCATTTCTCGCGCTACAGCCCGTCCCCGCTGTCCATGAAGCAGCTACTGGACTTTGGTTTCAGAAAA
TGCATGTGAAAGAACTTCTTTTGCATTTTTCGACAAGAATTGCCTGTGAGACTCGCCAACATTCTGAAG
GAAATTTGATATCCTCCCGACCAATTAGTAAATACCTCTTCAGTGAATTGGTTAAAAGCTGGTATATAC
AGAGCCTGATGGATTTGGTGGAAATTCATGAGAAAAGCCAGATGACCAGAAAAGCATTATCAGACTTTTGA
AGATACACTCATCAAAGTTCGAAATAGACACCATAATGTAGTCCCTACAATGGCACAAGGAATCATAGAG
TATAAAGATGCCTGTACAGTTGACCCAGTCACCAATCAAATCTTCAATATTTCTTGATCGATTTTACA
TGAACCGTATTTCTACTCGGATGCTGATGAACCAGCACATTCTTATATTTAGTACTCACAGACAGGAAA
CCCAAGCCACATTGGAAGCATTGATCCTAACTGTGATGTGGTAGCAGTGGTCCAAGATGCCTTTGAGTGT
TCAAGGATGCTCTGTGATCAGTATTATTTATCATCTCCAGAAATTAAGCTTACACAAGTGAATGGAAAAT
TTCCAGACCAACCAATTCACATCGTGTATGTTCCCTCTCACCTCCATCATATGCTCTTTGAACTATTTAA
GAATGCAATGCGGGCAACAGTTGAACACCAGGAAAATCAGCCTTCCCTTACACCAATAGAGGTTATTGTT
GTCTTGGGAAAAGAAGACCTTACCATTAAGATTTAGACAGAGGAGGTGGTGTCCCTGAGAATTATTG
ACCGCCTCTTTAGTTATACATACTCCACTGCACCAACGCCTGTGATGGATAATCCCGGAATGCTCCTTT
GGCTGGTTTTGGTTACGGCTTGCCAATTTCTCGTCTGTATGCCAAGTACTTTCAAGGAGATCTGAATCTC
TACTCTTTATCAGGATATGGAACAGATGCTATCATCTACTTAAAGGCTTTGTCTTCTGAGTCTATAGAAA
AACTTCCAGTTTTTAACAAGTCAGCCTTCAAACATTATCAGATGAGCTCTGAGGCTGATGACTGGTGTAT
CCCAAGCAGGGAACCAAGAACCTGGCAAAAAGAAGTGCCATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201656 protein sequence
Red=Cloning site Green=Tags(s)

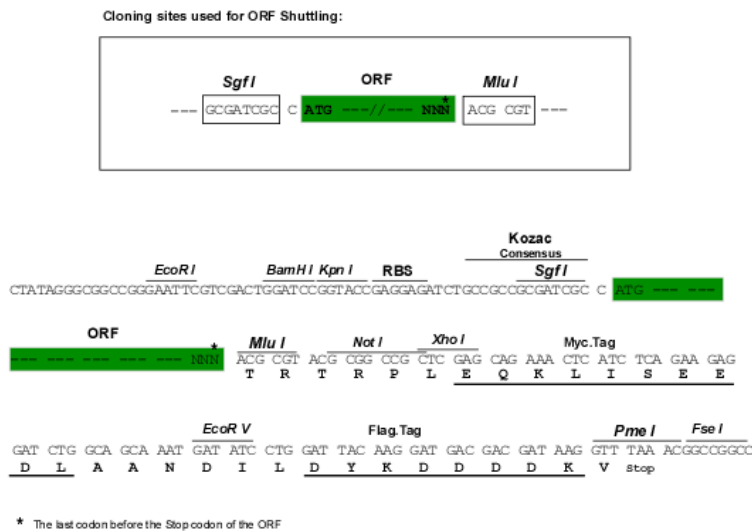
MKAARFVLR SAGSLN GAGLVPREVEHFSRYSPLSMKQLLDFGSENACERTSFAFLRQELPVRLANILK
 EIDILPTQLVNTSSVQLVKSQYIQSLMDLVEFHEKSPDDQKAL SDFVDTLIKVRNRHNVPTMAQGIIE
 YKDACTVDPVTNQLQYFLDRFYMNRISTRMLMNQHILIFSDSQTGNPSHIGSIDPNCDDVAVVQDAFEC
 SRMLCDQYYLSSPELKLTVQVNGKFPDQPIHIVYVPSHLHHMLFELFKNAMRATVEHQENQPSLTPIEVIV
 VLGKEDLTIKISDRGGVPLRIIDRLFSTYSTAPTVMDSNRNAPLAGFGYGLPISRLYAKYFQGDNLN
 YLSG YGTDAIIYLKALSSIESIEKLPVFNKSAFKHYQMSSEADDWCIPSREPKNLAKEVAM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6074_a04.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_002612

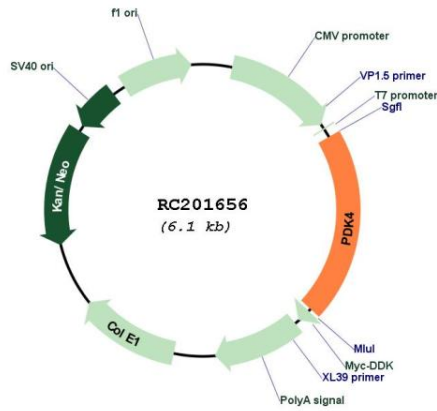
ORF Size: 1233 bp

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 or by calling 301.340.3188 option 3 for pricing and delivery.

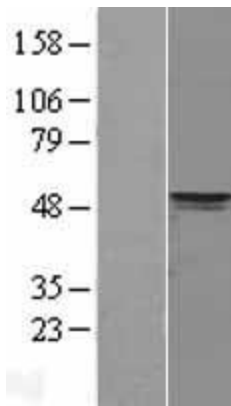
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002612.2 , NP_002603.1
RefSeq Size:	3710 bp
RefSeq ORF:	1236 bp
Locus ID:	5166
UniProt ID:	Q16654
Cytogenetics:	7q21.3
Domains:	HATPase_c
Protein Families:	Druggable Genome, Protein Kinase
MW:	46.5 kDa
Gene Summary:	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]

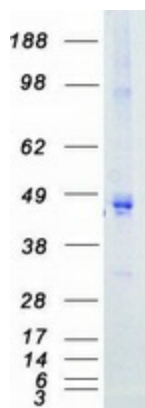
Product images:



Circular map for RC201656



Western blot validation of overexpression lysate (Cat# [LY400924]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201656 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDK4 protein (Cat# [TP301656]). The protein was produced from HEK293T cells transfected with PDK4 cDNA clone (Cat# RC201656) using MegaTran 2.0 (Cat# [TT210002]).