

Product datasheet for RC205937

PDK2 (NM_002611) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDK2 (NM_002611) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDK2
Synonyms:	PDHK2; PDKII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205937 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCTGGGTGTGGGCGCTGCTGAAGAATGCGTCCCTGGCAGGGGCGCCCAAGTACATAGAGCACTTCA
GCAAGTCTCCCCGTCCCCGCTGCCATGAAGCAGTTTCTGGACTTCGGATCCAGCAATGCCTGTGAGAA
AACCTCCTTACCTTCTCAGGCAGGAGCTGCCTGTGCGCCTGGCCAACATCATGAAAGAGATCAACCTG
CTTCCCGACCGAGTGCTGAGCACACCCTCCGTGCAGCTGGTGCAGAGCTGGTATGTCCAGAGCCTCTGG
ACATCATGGAGTTCCTGGACAAGGATCCCGAGGACCATCGCACCTGAGCCAGTTCACTGACGCCCTGGT
CACCATCCGGAACCGGCACAACGACGTGGTGGCCACCATGGCACAAGGCGTGTGTTGAGTACAAGGACACC
TACGGCGATGACCCCGTCTCCAACCAGAACATCCAGTACTTCTGGACCGCTTCTACCTCAGCCGCATCT
CCATCCGCATGCTCATCAACCAGCACACCCTCATCTTTGATGGCAGCACCAACCCAGCCCATCCCAAACA
CATCGGCAGCATCGACCCCAACTGCAACGTCTCTGAGGTGGTCAAAGATGCCTACGACATGGCTAAGCTC
CTGTGTGACAAGTATTACATGGCCTCACCTGACCTGGAGATCCAGGAGATCAATGCAGCCAACTCCAAAC
AGCCGATTCACATGGTCTACGTCCCCTCCCACCTTACCACATGCTCTTTGAGCTTTCAAGAATGCCAT
GAGGGCGACTGTGAAAGCCATGAGTCCAGCCTCATTCTCCACCCATCAAGGTCATGGTGGCCTTGGGT
GAGGAAGATCTGCCATCAAGATGAGTGACCGAGGTGGGGTGTCCCTTGAGGAAGATTGAGCGACTCT
TCAGTACATGTACTCCACAGCACCCACCCCGCAGCCTGGCACCAGGGGAACGCCGCTGGCTGGCTTTGG
TTATGGGCTCCCCATTTCCCGCCTCTACGCCAAGTACTTCCAGGGAGACCTGCAGCTCTTCTCCATGGAA
GGCTTTGGGACCGATGCTGTCATCTATCTCAAGGCCCTGTCCACGGACTCGGTGGAGCGCCTGCCTGTCT
ACAACAAGTCAGCCTGGCGCCACTACCAGACCATCCAGGAGGCCGGCGACTGGTGTGTGCCACGACGGA
GCCAAGAACACGTCCACGTACCGCTCAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC205937 protein sequence
Red=Cloning site Green=Tags(s)

MRVWVALLKNASLAGAPKYIEHFSKFSPLSMKQFLDFGSSNACEKTSFTFLRQELPVRLANIMKEINL
 LPDRVLSTPSVQLVQSWYVQSLDIMEFLDKDPEDHRTL SQFTDALVTIRNRHNDVPTMAQGVLEYKDT
 YGDDPVSNQNIQYFLDRFYLSRISIRMLINQHTLIFDGSTNPAHPKHIGSIDPNCNVSEVVKDAYDMAKL
 LCDKYMASPDLEIQEINAANSKQPIHMVYVPSHLYHMLFELFKNAMRATVESHESSLILPPIKVMVALG
 EEDLSIKMSDRGGVPLRKIERLFSYMYSTAPTPQPGTGGTPLAGFGYGLPISRLYAKYFQGDQLFSME
 FGTDAVIYALKALSTDSVERLPVYNKSAWRHYQTIQEAGDWCVPSTEPKNTSTYRVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6178_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002611

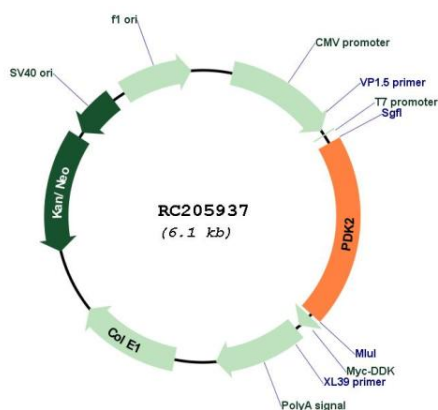
ORF Size: 1221 bp

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.

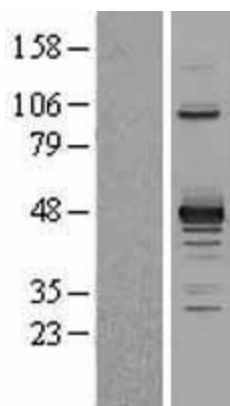
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_002611.5
RefSeq Size:	2674 bp
RefSeq ORF:	1224 bp
Locus ID:	5164
UniProt ID:	Q15119
Cytogenetics:	17q21.33
Domains:	HATPase_c
Protein Families:	Druggable Genome, Protein Kinase
MW:	46.2 kDa
Gene Summary:	This gene encodes a member of the pyruvate dehydrogenase kinase family. The encoded protein phosphorylates pyruvate dehydrogenase, down-regulating the activity of the mitochondrial pyruvate dehydrogenase complex. Overexpression of this gene may play a role in both cancer and diabetes. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]

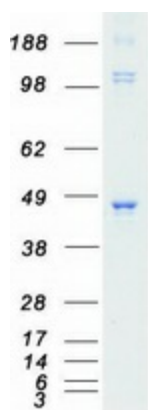
Product images:



Circular map for RC205937



Western blot validation of overexpression lysate (Cat# [LY400923]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205937 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDK2 protein (Cat# [TP305937]). The protein was produced from HEK293T cells transfected with PDK2 cDNA clone (Cat# RC205937) using MegaTran 2.0 (Cat# [TT210002]).