OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC220599

PKC beta 1 (PRKCB) (NM_212535) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC beta 1 (PRKCB) (NM_212535) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKC beta 1
Synonyms:	PKC-beta; PKCB; PKCbeta; PKCI(2); PRKCB1; PRKCB2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

ORF Nucleotide Sequence:

>RC220599 representing NM_212535
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGACCCGGCTGCGGGGCCGCCGCCGAGCGAGGGCGAGGAGAGCACCGTGCGCTTCGCCCGCAAAG
GCGCCCTCCGGCAGAAGAACGTGCATGAGGTCAAGAACCACAAATTCACCGCCCGCTTCTTCAAGCAGCC
CACCTTCTGCAGCCACTGCACCGACTTCATCTGGGGCTTCGGGAAGCAGGGATTCCAGTGCCAAGTTTGC
TGCTTTGTGGTGCACAAGCGGTGCCATGAATTTGTCACATTCTCCTGCCCTGGCGCTGACAAGGGTCCAG
CCTCCGATGACCCCCGCAGCAAACACAAGTTTAAGATCCACACGTACTCCAGCCCCACGTTTTGTGACCA
CTGTGGGTCACTGCTGTATGGACTCATCCACCAGGGGATGAAATGTGACACCTGCATGATGAATGTGCAC
AAGCGCTGCGTGATGAATGTTCCCAGCCTGTGTGGCACGGACCACACGGAGCGCCGCGGCCGCATCTACA
TCCAGGCCCACATCGACAGGGACGTCCTCATTGTCCTCGTAAGAGATGCTAAAAACCTTGTACCTATGGA
CCCCAATGGCCTGTCAGATCCCTACGTAAAACTGAAACTGATTCCCGATCCCAAAAGTGAGAGCAAACAG
AAGACCAAAACCATCAAATGCTCCCTCAACCCTGAGTGGAATGAGACATTTAGATTTCAGCTGAAAGAAT
CGGACAAAGACAGAAGACTGTCAGTAGAGATTTGGGATTGGGATTTGACCAGCAGGAATGACTTCATGGG
ATCTTTGTCCTTTGGGATTTCTGAACTTCAGAAAGCCAGTGTTGATGGCTGGTTTAAGTTACTGAGCCAG
GAGGAAGGCGAGTACTTCAATGTGCCTGTGCCACCAGAAGGAAGTGAGGCCAATGAAGAACTGCGGCAGA
AATTTGAGAGGGCCAAGATCAGTCAGGGAACCAAGGTCCCGGAAGAAAAGACGACCAACACTGTCTCCAA
ATTTGACAACAATGGCAACAGAGACCGGATGAAACTGACCGATTTTAACTTCCTAATGGTGCTGGGGAAA
GGCAGCTTTGGCAAGGTCATGCTTTCAGAACGAAAAGGCACAGATGAGCTCTATGCTGTGAAGATCCTGA
AGAAGGACGTTGTGATCCAAGATGATGACGTGGAGTGCACTATGGTGGAGAAGCGGGTGTTGGCCCTGCC
CGGGAAGCCGCCCTTCCTGACCCAGCTCCACTCCTGCTTCCAGACCATGGACCGCCTGTACTTTGTGATG
GAGTACGTGAATGGGGGCGACCTCATGTATCACATCCAGCAAGTCGGCCGGTTCAAGGAGCCCCATGCTG
TATTTTACGCTGCAGAAATTGCCATCGGTCTGTTCTTCTTACAGAGTAAGGGCATCATTTACCGTGACCT
AAAACTTGACAACGTGATGCTCGATTCTGAGGGACACATCAAGATTGCCGATTTTGGCATGTGTAAGGAA
AACATCTGGGATGGGGTGACAACCAAGACATTCTGTGGCACTCCAGACTACATCGCCCCCGAGATAATTG
CTTATCAGCCCTATGGGAAGTCCGTGGATTGGTGGGCATTTGGAGTCCTGCTGTATGAAATGTTGGCTGG
GCAGGCACCCTTTGAAGGGGAGGATGAAGATGAACTCTTCCAATCCATCATGGAACACAACGTAGCCTAT
CCCAAGTCTATGTCCAAGGAAGCTGTGGCCATCTGCAAAGGGCTGATGACCAAACACCCAGGCAAACGTC
TGGGTTGTGGACCTGAAGGCGAACGTGATATCAAAGAGCATGCATTTTTCCGGTATATTGATTGGGAGAA
ACTTGAACGCAAAGAGATCCAGCCCCCTTATAAGCCAAAAGCTAGAGACAAGAGAGACACCTCCAACTTC
GACAAAGAGTTCACCAGACAGCCTGTGGAACTGACCCCCACTGATAAACTCTTCATCATGAACTTGGACC
AAAATGAATTTGCTGGCTTCTCTTATACTAACCCAGAGTTTGTCATTAATGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

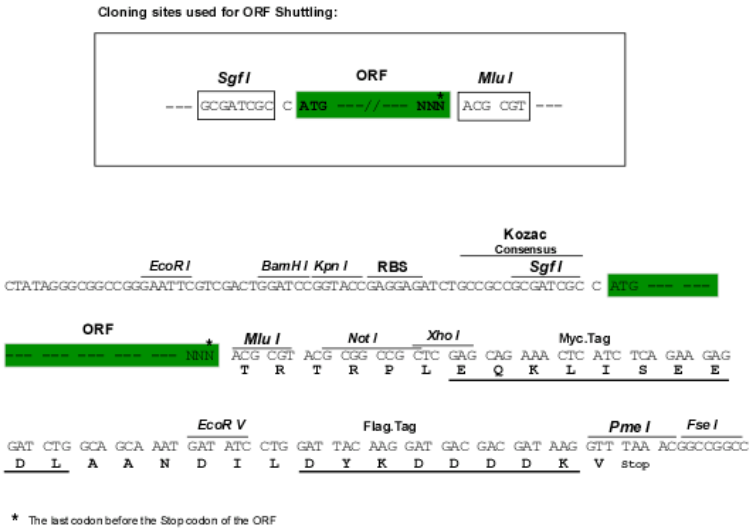
Protein Sequence:

```
>RC220599 representing NM_212535
Red=Cloning site Green=Tags(s)

MADPAAGPPPSEGEESTVRFARKGALRQKNVHEVKNHKFTARFFKQPTFCSHCTDFIWGFGKQGFQCQVC
CFVVHKRCHEFVTFSCPGADKGPASDDPRSKHKFKIHTYSSPTFCDHCGSLLYGLIHQGMKCDTCMMNVH
KRCVMNVPSLCGTDHTERRGRIYIQAHIDRDVLIVLVRDAKNLVPMDPNGLSDPYVKLKLIPDPKSESKQ
KTKTIKCSLNPEWNETFRFQLKESDKDRRLSVEIWDWDLTSRNDFMGSLSFGISELQKASVDGWFKLLSQ
EEGEYFNVPVPPEGSEANEELRQKFERAKISQGTKVPEEKTTNTVSKFDNNGNRDRMKLTDFNFLMVLGK
GSFGKVMLSERKGTDELYAVKILKKDVVIQDDDVECTMVEKRVLALPGKPPFLTQLHSCFQTMDRLYFVM
EYVNGGDLMYHIQQVGRFKEPHAVFYAAEIAIGLFFLQSKGIIYRDLKLDNVMLDSEGHIKIADFGMCKE
NIWDGVTTKTFCGTPDYIAPEIIAYQPYGKSVDWWAFGVLLYEMLAGQAPFEGEDEDELFQSIMEHNVAY
PKSMSKEAVAICKGLMTKHPGKRLGCGPEGERDIKEHAFFRYIDWEKLERKEIQPPYKPKARDKRDTSNF
DKEFTRQPVELTPTDKLFIMNLDQNEFAGFSYTNPEFVINV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

Chromatograms: https://cdn.origene.com/chromatograms/mg4220_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_212535

ORF Size: 2013 bp

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

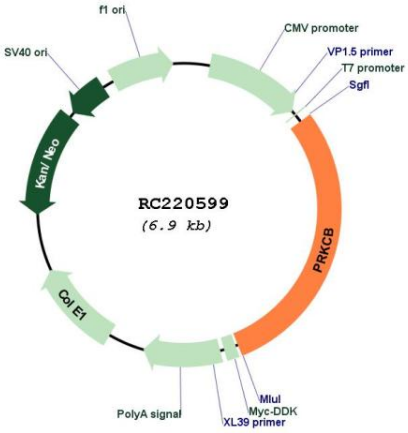
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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:	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_212535.3
RefSeq Size:	2319 bp
RefSeq ORF:	2016 bp
Locus ID:	5579
UniProt ID:	P05771
Cytogenetics:	16p12.2-p12.1
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	B cell receptor signaling pathway, Calcium signaling pathway, Chemokine signaling pathway, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Leukocyte transendothelial migration, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Natural killer cell mediated cytotoxicity, Non-small cell lung cancer, Pathways in cancer, Phosphatidylinositol signaling system, Tight junction, Vascular smooth muscle contraction, VEGF signaling pathway, Vibrio cholerae infection, Wnt signaling pathway

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US

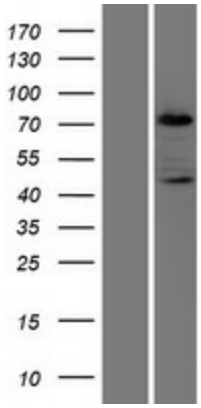
MW: 76.7 kDa

Gene Summary: Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This protein kinase has been reported to be involved in many different cellular functions, such as B cell activation, apoptosis induction, endothelial cell proliferation, and intestinal sugar absorption. Studies in mice also suggest that this kinase may also regulate neuronal functions and correlate fear-induced conflict behavior after stress. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]

Product images:

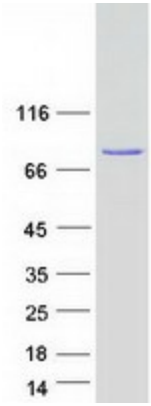


Circular map for RC220599



Western blot validation of overexpression lysate (Cat# [LY403957]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220599 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US



Coomassie blue staining of purified PRKCB protein (Cat# [TP320599]). The protein was produced from HEK293T cells transfected with PRKCB cDNA clone (Cat# RC220599) using MegaTran 2.0 (Cat# [TT210002]).

This product is to be used for laboratory only. Not for diagnostic or therapeutic use.
©2024 OriGene Technologies, Inc., 9620 Medical Center Drive, Ste 200, Rockville, MD 20850, US