

Product datasheet for **RC200438**

PKC zeta (PRKCZ) (NM_001033581) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC zeta (PRKCZ) (NM_001033581) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKC zeta
Synonyms:	PKC-ZETA; PKC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200438 representing NM_001033581
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAGCAGGACCGGCCCAAGATGGAAGGGAGCGGCGCCGCGTCCGCTCAAGCGCATTACGGG
 GGGACATCTTCATCACCAGCGTGGACGCCCGCACCTTCGAGGAGCTCTGTGAGGAAGTGAGAGACAT
 GTGTGCTGTGCACCAGCAGCACCCGCTCACCTCAAGTGGGTGGACAGCGAAGGTGACCTTGCACGGTG
 TCCTCCAGATGGAGCTGGAAGAGGCTTCCGCTGGCCGTCAGTGCAGGGATGAAGGCCTCATCATTC
 ATGTTTTCCCGAGCACCCCTGAGCAGCCTGGCTGCCATGTCCGGGAGAAGACAAATCTATACCGCCG
 GGGAGCCAGAAGATGGAGGAAGCTGTACCGTCCAACGGCCACCTCTTCAAGCCAAGCGCTTAAACAGG
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 TTATCGATGGGATGGATGGAATCAAAATCTCTCAGGGGCTTGGCTGCAGGACTTTGACCTAATCAGAGT
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 GAGCAGCCAGGTTCTACGCGGCCGAGATCTGCATCGCCCTCAACTTCTGCACGAGGGGGGATCATCT
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 CCAAGTATCCTGGAGAAGCCATCCGGATCCCGGTTCTGTCCGTCAAAGCCTCCCATGTTTTAAAA
 GGATTTTTAAATAAGGACCCAAAGAGAGGCTCGGCTGCCGCCACAGACTGGATTTTCTGACATCAAGT
 CCCACGCTTCTCCGCAGCATAGACTGGGACTTGCTGGAGAAGAAGCAGGCGCTCCCTCCATCCAGCC
 ACAGATCACAGACGACTACGGTCTGGACAACCTTGGACACAGTTCCACGCGAGCCCGTGCAGCTGACC
 CCAGACGATGAGGATGCCATAAAGAGGATCGACCAGTCAAGGCTTTGAGTATATCAACCCAT
 TATTGCTGTCCACCGAGGAGTCCGGT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200438 representing NM_001033581
 Red=Cloning site Green=Tags(s)

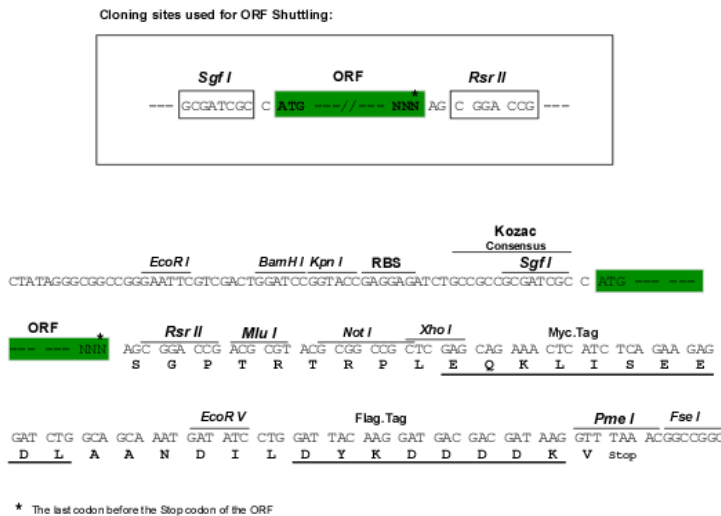
MPSRTGPKMEGSSGGRVRLKAHYGGDIFITSVDAATTFEELCEEVRDMCRLHQHPLTLKWVDSEGDPTV
 SSQMELEEFRLARQCRDEGLIIHVFPSTPEQPGLPCPGEDKSIYRRGARRWRKLYRANGHLFQAKRFNR
 RAYCGQCSERIWGLARQGYRCINCKLLVHKRCHGLVPLTCRKHMDVMPSQEPVDDKNEDADLPSEETD
 GIAYISSRKHDSIKDSEDLPVIDGMDGIKISQGLGLQDFDLIRVIGRGSYAKVLLVRLKKNQDIYAM
 KVVKKELVHDEIDWVQTEKHVFEQASSNPFLVGLHSCFQTTSRLFLVIEYVNGDLMFHMQRQRKLE
 EHARFYAAEICIALNFLHERGIIYRDLKLDNVLDDADGHIKLTDYGMCKEGLGPGDSTFCGTPNYIAP
 EILRGEYGFSDWWALGVMFMAGRSPFDIITDNPDMNTEDYLFQVILEKPIRIPRFLSVKASHVLK
 GFLNKDPKERLGCRPQTGFSDIKSHAFFRSIDWDLLEKKQALPPFPQITDDYGLDNFDTQFTSEPVQLT
 PDEDAIKRIDQSEFEGFEYINPLLLSTEEVS

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:



ACCN: NM_001033581

ORF Size: 1776 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.

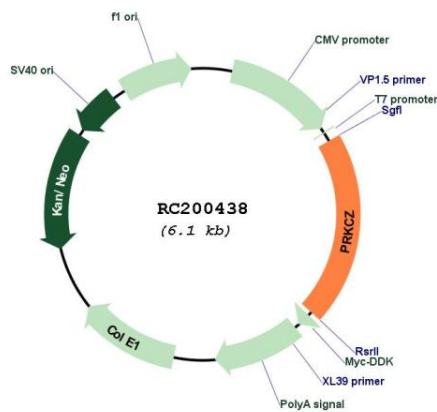
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:
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.

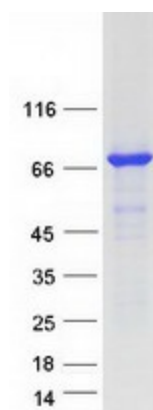
RefSeq: [NM_001033581.1](#), [NP_001028753.1](#)

RefSeq Size:	2147 bp
RefSeq ORF:	1230 bp
Locus ID:	5590
UniProt ID:	Q05513
Cytogenetics:	1p36.33
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Chemokine signaling pathway, Endocytosis, Insulin signaling pathway, Tight junction, Type II diabetes mellitus
MW:	67.7 kDa
Gene Summary:	Protein kinase C (PKC) zeta is a member of the PKC family of serine/threonine kinases which are involved in a variety of cellular processes such as proliferation, differentiation and secretion. Unlike the classical PKC isoenzymes which are calcium-dependent, PKC zeta exhibits a kinase activity which is independent of calcium and diacylglycerol but not of phosphatidylserine. Furthermore, it is insensitive to typical PKC inhibitors and cannot be activated by phorbol ester. Unlike the classical PKC isoenzymes, it has only a single zinc finger module. These structural and biochemical properties indicate that the zeta subspecies is related to, but distinct from other isoenzymes of PKC. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC200438



Coomassie blue staining of purified PRKCZ protein (Cat# [TP300438]). The protein was produced from HEK293T cells transfected with PRKCZ cDNA clone (Cat# RC200438) using MegaTran 2.0 (Cat# [TT210002]).