

Product datasheet for **RC215013**

PKC zeta (PRKCZ) (NM_001033582) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC zeta (PRKCZ) (NM_001033582) 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:

>RC215013 representing NM_001033582
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAGCAGGACCGGCCCAAGATGGAAGGGAGCGGCGCCGCGTCCGCTCAAGCGCATTACGGGG
 GGGACATCTTCATCACCAGCGTGGACGCCCGCACCTTCGAGGAGCTCTGTGAGGAAGTGAGAGACAT
 GTGTGCTGTGCACCAGCAGCACCCGCTCACCTCAAGTGGGTGGACAGCGAAGGTGACCCCTGCACGGTG
 TCCTCCAGATGGAGCTGGAAGAGGCTTCCGCTGGCCGTCAGTGCAGGGATGAAGGCCTCATCATTC
 ATGTTTTCCCGAGCACCCCTGAGCAGCCTGGCTGCCATGTCCGGGAGAAGACAAATCTATACCGCCG
 GGGAGCCAGAAGATGGAGGAAGCTGTACCGTCCAACGGCCACCTCTTCAAGCCAAGCGCTTAAACAGG
 AGAGCGTACTGCGGTGAGTGCAGCGAGAGGATATGGGGCTCGCAGGCAAGGCTACAGGTGCATCAACT
 GCAAACGCTGGTCCATAAAGCGCTGCCACGGCCTCGTCCCGCTGACCTGCAGGAAGCATATGGATTCTGT
 CATGCCCTCCCAAGAGCCTCCAGTAGACGACAAGAACGAGGACCGGACCTTCTTCCGAGGAGACAGAT
 GGAATTGCTTACATTTCTCATCCCGGAAGCATGACAGCATTAAGACGACTCGGAGGACCTTAAGCCAG
 TTATCGATGGGATGGATGGAATCAAATCTCTCAGGGGCTTGGGCTGCAGGACTTTGACCTAATCAGAGT
 CATCGGGCGGGGAGCTACGCCAAGGTTCTCCTGGTGGGTTGAAGAAGAATGACCAAATTTACGCCATG
 AAAGTGGTGAAGAAAGAGCTGGTGCATGATGACGAGGATATTGACTGGGTACAGACAGAGAAGCAGTGT
 TTGAGCAGGCATCCAGCAACCCCTTCTGGTGGATTACACTCCTGCTCCAGACGACAAGTCCGTTGTT
 CCTGGTCATTGAGTACGTCAACGGCGGGGACCTGATGTCCACATGCAGAGGCAGAGGAAGCTCCCTGAG
 GAGCAGCCAGGTTCTACGCGGCCGAGATCTGCATCGCCCTCAACTTCTGCACGAGGGGGGATCATCT
 ACAGGGACCTGAAGCTGGACAACGTCTCTGGATGCGGACGGGCACATCAAGCTCACAGACTACGGCAT
 ATGCAAGGAAGGCCTGGGCCCTGGTGCACAACGAGCACTTTCTGCGGAACCCCGAATTACATCGCCCC
 GAAATCTGCGGGGAGAGGAGTACGGGTTACGCGTGGACTGGTGGGCGCTGGGAGTCTCATGTTTGAGA
 TGATGGCCGGGCGCTCCCGTTGCATCATCACCGACAACCCGGACATGAACACAGAGGACTACCTTTT
 CCAAGTATCCTGGAGAAGCCATCCGGATCCCGGTTCTGTCCGTCAAAGCCTCCCATGTTTTAAAA
 GGATTTTTAAATAAGGACCCAAAGAGAGGCTCGGCTGCCGCCACAGACTGGATTTTCTGACATCAAGT
 CCCACGCTTCTCCGCAGCATAGACTGGGACTTGCTGGAGAAGAAGCAGGCGCTCCCTCCATCCAGCC
 ACAGATCACAGACGACTACGGTCTGGACAACCTTGGACACAGTTCCACGCGAGCCCGTGCAGCTGACC
 CCAGACGATGAGGATGCCATAAAGAGGATCGACCAGTCAAGGCTTTGAGTATATCAACCCAT
 TATTGCTGTCCACCGAGGAGTCCGGT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215013 representing NM_001033582
 Red=Cloning site Green=Tags(s)

MPSRTGPKMEGSSGGRVRLKAHYGGDIFITSVDAATTFEELCEEVRDMCRLHQHPLTLKWVDSEGDPTV
 SSQMELEEFRLARQCRDEGLIIHVFPSTPEQPGLPCPGEDKSIYRRGARRWRKLYRANGHLFQAKRFNR
 RAYCGQCSERIWGLARQGYRCINCKLLVHKRCHGLVPLTCRKHMDVMPSQEPVDDKNEDADLPSEETD
 GIAYISSRKHDSIKDSEDLKPVIDGMDGIKISQGLGLQDFDLIRVIGRGSYAKVLLVRLKKNQDIYAM
 KVVKKELVHDDIDWVQTEKHVFEQASSNPFLVGLHSCFQTTSRFLVIEYVNGDLMFHMQRQRKLE
 EHARFYAAEICIALNFLHERGIIYRDLKLDNVLLDADGHIKLTDYGMCKEGLGPGDSTFCGTPNYIAP
 EILRGEYGFSDWWALGVLFMFEMAGRSPFDIITDNPDMNTEDYLFQVILEKPIRIPRFLSVKASHVLK
 GFLNKDPKERLGCRPQTGFSDIKSHAFFRSIDWDLLEKKQALPPFPQITDDYGLDNFDTQFTSEPVQLT
 PDEDAIKRIDQSEFEGFEYINPLLLSTEEVS

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:


ACCN: NM_001033582

ORF Size: 1776 bp

OTI Disclaimer: 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_001033582.1](#), [NP_001028754.1](#)

RefSeq Size: 2044 bp

RefSeq ORF: 1230 bp

Locus ID: 5590

UniProt ID: [Q05513](#)

Cytogenetics: 1p36.33

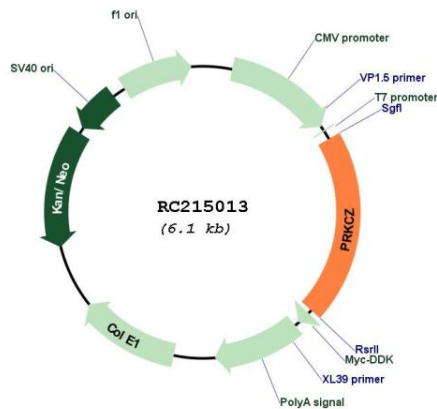
Protein Families: Druggable Genome, Protein Kinase

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 RC215013