

Product datasheet for **RG232839**

PKC zeta (PRKCZ) (NM_001242874) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC zeta (PRKCZ) (NM_001242874) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PRKCZ
Synonyms:	PKC-ZETA; PKC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG232839 representing NM_001242874
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCACCCGAGGACGGATGAATCTATCTACCGCCGGGAGCCAGAAGATGGAGGAAGCTGTACCGTG
 CCAACGGCCACCTCTTCCAAGCCAAGCGCTTTAACAGGAGAGCGTACTGCGGTCACTGCAGCGAGAGGAT
 ATGGGGCCTCGCGAGGCAAGGCTACAGGTGCATCAACTGCAAAGTCTGGTCCATAAGCGCTGCCACGGC
 CTCGTCCCCTGACCTGCAGGAAGCATATGGATTCTGTGCATGCCTTCCAAGAGCCTCCAGTAGACGACA
 AGAACGAGGACGCCGACCTTCTTCCGAGGAGACAGATGGAATTGCTTACATTTCTCATCCCGGAAGCA
 TGACAGCATTAAAGACGACTCGGAGGACCTTAAGCCAGTTATCGATGGGATGGATGGAATCAAAATCTCT
 CAGGGGCTTGGGCTGCAGGACTTTGACCTAATCAGAGTCATCGGGCGGGAGCTACGCCAAGGTTCTCC
 TGGTGCAGTTGAAGAAGAATGACCAAATTTACGCCATGAAAGTGGTGAAGAAAGAGCTGGTGCATGATGA
 CGAGGATATTGACTGGGTACAGACAGAGAAGCACGTGTTTGGAGCAGGCATCCAGCAACCCCTTCTGGTC
 GGATTACACTCCTGCTTCCAGACGACAAGTCGGTTGTTCTCTGGTCAATTGAGTACGTCACCGCGGGGACC
 TGATGTTCCACATGCAGAGGCAGAGGAAGTCCCTGAGGAGCACGCCAGGTTCTACGCGCGCGAGATCTG
 CATCGCCCTCAACTTCTGCACGAGAGGGGGATCATCTACAGGGACCTGAAGCTGGACAACGTCCTCCTG
 GATGCGGACGGGCACATCAAGCTCACAGACTACGGCATGTGCAAGGAAGGCTGGGCCCTGGTGACACAA
 CGAGCACTTTCTGCGAACCCTGAATTACATCGCCCCGAAATCTGCGGGGAGAGGAGTACGGGTTTCA
 CGTGGACTGGTGGGCGCTGGGAGTCTCATGTTTGAAGTATGATGGCCGGGCGCTCCCGTTTCGACATCATC
 ACCGACAACCCGGACATGAACACAGAGGACTACCTTTTCAAGTATCCTGGAGAAGCCCATCCGGATCC
 CCCGGTTCTGTCGTCGCAAGCCCTCCCATGTTTTAAAAGGATTTTTAAATAAGGACCCCAAGAGAGGACT
 CGGCTGCCGCGCCACAGACTGGATTTTCTGACATCAAGTCCCACGCGTCTTCCGCAGCATAGACTGGGAC
 TTGCTGGAGAAGAAGCAGGCGCTCCCTCCATTCCAGCCACAGATCACAGACGACTACGGTCTGGACAAC
 TTGACACACAGTTACCAGCGAGCCGTCAGCTGACCCACAGCAGATGAGGATGCCATAAAGAGGATCGA
 CCAGTCAGAGTTCGAAGGCTTTGAGTATATCAACCCATTATTGCTGTCCACCGAGGAGTCCGGT

AG**CGGACCG**ACGCGTACGCGCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG232839 representing NM_001242874
 Red=Cloning site Green=Tags(s)

MLTPRTDESIYRRGARRWRKLYRANGHLFQAKRFNRRAYCGQCSERIWGLARQGYRCINCKLLVHKRCHG
 LVPLTCRKHMSVMPQSQEPVDDKNEDADLPSEETDGIAYISSSRKHDSIKDDSEDLKPVIDGMDGIKIS
 QGLGLQDFDLIRVIGRGSYAKVLLVRLKKNQDIYAMKVVKELVHDEDEDIDWVQTEKHVFEQASSNPFLV
 GLHSCFQTTSRLFLVIEYVNGGDLFMHMQRQRKLP EEHARFYAAEICIALNFLHERGIIYRDLKLDNVL
 DADGHIKLTDYGMCKEGLPGDSTTFCTGTPNYIAPEILRGEYGFSDWWALGVLFMEMAGRSPFDII
 TDNPDMMNTEDYLFQVILEKPIRIPRFLSVKASHVLKGFNLKDPKERLGCRPQTGFSDIKSHAFFRSIDWD
 LLEKKQALPPFQPQITDDYGLDNFDTQFTSEPVQLTPDDEDAIKRIDQSEFEGFEYINPLLLSTEEVS

SGP**TRRRLE** – GFP Tag – V

Restriction Sites:

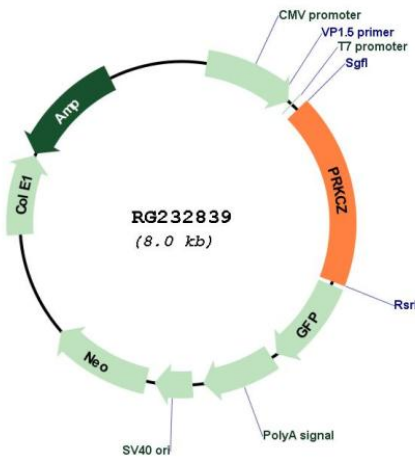
SgfI-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001242874

ORF Size: 1464 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:	<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_001242874.2
RefSeq Size:	2154 bp
RefSeq ORF:	1467 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
Gene Summary:	<p>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]</p>