

Product datasheet for SC302749

PKC zeta (PRKCZ) (NM_001033582) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC zeta (PRKCZ) (NM_001033582) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC zeta
Synonyms:	PKC-ZETA; PKC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC302749 representing NM_001033582. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
 GATCCGGTACCGAGGAGATCTGCCGCC**CGCATCGCC**
 ATGGATTCTGTCATGCCTTCCCAAGAGCCTCCAGTAGACGACAAGAACGAGGACGCCGACCTTCCTTCC
 GAGGAGACAGATGGAATTGCTTACATTTCTCATCCCGAAGCATGACAGCATTAAAGACGACTCGGAG
 GACCTTAAGCCAGTTATCGATGGGATGGATGGAATCAAATCTCTCAGGGGCTTGGGCTGCAGGACTTT
 GACCTAATCAGAGTCATCGGGCGGGGAGCTACGCCAAGGTTCTCTGGTGCGGTTGAAGAAGAATGAC
 CAAATTTACGCCATGAAAGTGGTGAAGAAAGAGCTGGTGCATGATGACGAGGATATTGACTGGGTACAG
 ACAGAGAAGCACGTGTTTGAGCAGGCATCCAGCAACCCCTTCTGGTGGATTACACTCCTGCTTCCAG
 ACGACAAGTCGGTTGTTCTGGTCATTGAGTACGTCAACGGCGGGGACCTGATGTTCCACATGCAGAGG
 CAGAGGAAGCTCCCTGAGGAGCACGCCAGGTTCTACGCGGCCGAGATCTGCATCGCCCTCAACTTCTG
 CACGAGAGGGGGATCATCTACAGGGACCTGAAGCTGGACAACGTCCTCTGGATGCGGACGGGCACATC
 AAGCTCACAGACTACGGCATGTGCAAGGAAGGCCTGGGCCCTGGTGACACAACGAGCACTTTCTGCGGA
 ACCCCGAATTACATCGCCCCGAAATCTGCGGGGAGAGGAGTACGGGTTACGCGTGAGCTGGTGGGCG
 CTGGGAGTCCTCATGTTTGAGATGATGGCCGGGCGCTCCCGTTTCGACATCATCACCACAACCCGGAC
 ATGAACACAGAGGACTACCTTTTCAAGTGATCCTGGAGAAGCCCATCCGGATCCCCCGGTTCTGTCC
 GTCAAAGCCTCCCATGTTTTAAAGGATTTTTAAATAAGGACCCAAAGAGAGGCTCGGTCGCCGCCA
 CAGACTGGATTTTCTGACATCAAGTCCCACGCGTTCTTCCGACGATAGACTGGGACTTGCTGGAGAAG
 AAGCAGGCGCTCCCTCCATTCCAGCCACAGATCACAGACGACTACGGTCTGGACAACCTTTGACACACAG
 TTCACCAGCGAGCCCGTGACGCTGACCCAGACGATGAGGATGCCATAAAGAGGATCGACCACTCAGAG
 TTCGAAGGCTTTGAGTATATCAACCCATTATTGCTGTCCACCGAGGAGTCGGTGTGA
 AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGAT
 ATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-RsrII


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ACCN:	NM_001033582
Insert Size:	1230 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<u>NM_001033582.1</u>
RefSeq Size:	2044 bp
RefSeq ORF:	1230 bp
Locus ID:	5590
UniProt ID:	<u>Q05513</u>
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:	46.6 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]

Transcript Variant: This variant (3) differs in the 5' UTR and has multiple coding region differences, compared to variant 1. These differences cause translation initiation from a downstream ATG and an isoform (3) with a shorter N-terminus, compared to isoform 1. Variants 2 and 3 encode the same isoform (2).