

Product datasheet for **SC323556**

PKC zeta (PRKCZ) (NM_002744) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC zeta (PRKCZ) (NM_002744) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC zeta
Synonyms:	PKC-ZETA; PKC2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323556 sequence for NM_002744 edited (data generated by NextGen Sequencing)

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ATGCCACGACAGGACCGGCCCAAGATGGAAGGGAGCGGCGGCGTCCGCCTCAAGGCG
CATTACGGGGGGACATCTTCATACCAGCGTGGACGCCACGACCTTCGAGGAGCTC
TGTGAGGAAGTGAGAGACATGTGTCGTGCACCAGCAGCACCCTCACCTCAAGTGG
GTGGACAGCGAAGGTGACCTTGCACGGTGTCTCCAGATGGAGCTGGAAGAGGCTTTC
CGCCTGGCCCGTCAAGTGCAGGGACGAAGCCCTCATCATTATGTTTTCCCGAGCACCCCT
GAGCAGCCTGGCCTGCCATGTCCGGGAGAAGACAATCTATCTACCGCCGGGAGCCAGA
AGATGGAGGAAGCTGTACCGTGCCAACGGCCACCTCTTCCAAGCCAAGCGCTTTAACAGG
AGAGCGTACTGCGGTGAGTGCAGCGAGAGGATATGGGGCCTCGCGAGGCAAGGCTACAGG
TGCATCAACTGCAAACTGCTGGTCCATAAAGCGTCCACGGCCTCGTCCCGCTGACCTGC
AGGAAGCATATGGATTCTGTCATGCCTTCCAAGAGCCTCCAGTAGACGACAAGAACGAG
GACGCCGACCTTCTTCCGAGGAGACAGATGGAATTGCTTACATTTCTCATCCCGAAG
CATGACAGCATTAAAGACGACTCGGAGGACCTTAAGCCAGTTATCGATGGGATGGATGGA
ATCAAAATCTCTCAGGGGCTTGGGCTGCAGGACTTTGACCTAATCAGAGTCATCGGGCGC
GGGAGCTACGCCAAGTTCTCTGGTGGGTTGAAGAAGAATGACCAAATTTACGCCATG
ATGGTGGTGAAGAAAGAGCTGGTGCATGATGACGAGGATATTGACTGGGTACAGACAGAG
AAGCAGTGTGTTGAGCAGGCATCCAGCAACCCCTTCTGGTGGATTACACTCCTGCTTC
CAGACGACAAGTCGGTGTCTCTGGTCAATTGAGTACGTC AACGGCGGGGACCTGATGTTT
CACATGCAGAGGCAGAGGAAGCTCCCTGAGGAGCACGCCAGGTTCTACGGCGCCGAGATC
TGCATCGCCCTCAACTTCTGCACGAGAGGGGATCATCTACAGGGACCTGAAGCTGGAC
AACGTCCTCTGGATGCGGACGGGCACATCAAGCTCACAGACTACGGCATGTGCAAGGAA
GGCTTGGGCCCTGGTGCACAACGAGCACTTTCTGCGGAACCCCGAATTACATCGCCCCC
GAAATCTGCGGGGAGAGGAGTACGGGTTACGCGTGGACTGGTGGGCGCTGGGAGTCTCT
ATGTTTGAGATGATGGCCGGGCGCTCCCGTTCGACATCATCACCGACAACCCGGACATG
AACACAGAGGACTACCTTTTCCAAGTGATCCTGGAGAAGCCATCCGGATCCCCCGGTTT
CTGTCCGTCAAAGCCTCCATGTTTTAAAAGGATTTTTAAATAAGGACCCCAAAGAGAGG
CTCGGCTGCCGGCCACAGACTGGATTTTCTGACATCAAGTCCCACGCGTCTTCCGACG
ATAGACTGGGACTTGCTGGAGAAGAAGCAGGCGCTCCCTCCATTCCAGCCACAGATCACA
GACGACTACGGTCTGGACAACCTTTGACACACAGTTCACCAGCGAGCCCGTGCAGTGACC
CCAGACGATGAGGATGCCATAAAGAGGATCGACCAGTCAGAGTTCAAGGCTTTGAGTAT
ATCAACCCATTATTGCTGCCACCGAGGAGTCGGTGTGA
    
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Clone variation with respect to NM_002744.4
 264 t=>c;842 a=>t;843 a=>g

5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_002744 unedited

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ACGCCGTTGAGCAATGGTCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGT
TTAGTGAACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGG
CGCCATGGCCGGAGCTCCCGGGGCGCAGCGCTGACGGCGGCGGGGGAGCGCCATGCCAGCAGG
ACCGGCCCAAGATGGAAAGGAGCGGCGCCGCTCAAGGCGCATTACGGGGGGGACATCTTCATC
ACCAGCGTGGACGCCGCCACGACCTTTCGAGGAGCTCTGTGAGGAAGTGAGAGACATGTGTCGT
CTGACCCAGCAGCACCCTGCTCACCTCAAGTGGGGTGGGACAGCGGAAGGGTGACCCTTGCA
CGGTGTCCCTCCCCAGATGGGAGGCTTGGAGAGGGCTTTTCCGCCCTGCCCGTCCAGTGGCAG
GGGACGGAGGGCCTCATCCATTCCAGGTTTTTCCGGAGCCACCCCTGAACAGCCCGCCCTGC
ATGTGTCGGGAAAAAACAATTTCAATTTCTACCGCCGGGGACCCGAAGAAATGGAGGAACCTT
TACCGTGAACCGGCCCCCTTTCCAAGCCAGCCCTTTAACAGAGAGACACCCCGGGCACTGCA
AACCGAGGGATAGGGGGCTCCGCGAAACACGGGGCTACAAGTTAACACACCCACACATCTTTT
GGGTTACATAACGCCGTGCACAGCGCTCCTCTCCCTGATATCCTGGGAGAACATAGAGTATTG
TGTGCCGCTCCAGAGCCCCTGTACACAAAAACGAAGACGCACCTTTTCTCCAGAGAACAGAG
GAGCTTTCATATATCTCCTCCGCGAGACGCGAGCCCTTTAACGCACGCTCGAGCACTCACTT
CTCGTGGATGGAGCATATCTCTGCGCTGCTGCGCAGTATCTATCAAGATTTAGCGAGCTGTAT
CAGAATGTCTGTACGGGTGAGCAGAAGGCAC
    
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Kinase Domain Sequence:	>SC323556 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CGGGCTGAGCTGAGGACTTTGACCTAATCAGAGTCATCGGGCGCGGGAGCTACGCCAAGGTTCTCCTGGT GCGGTTGAAGAAGAATGACCAAATTTACGCCATGATGGTGGTGAATGACCAAATTTACGCCATGATGGTG GTGAAGAAGAATGACCAAATTTACGCCATGATGGTGGTGAAGAAGAGCTGGTGCATGATGACGAGGATA TTGACTGGGTACAGACAGAGAAGCACGTGTTTGAGCAGGCATCCA
Restriction Sites:	Please inquire
ACCN:	NM_002744
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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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_002744.3 , NP_002735.3
RefSeq Size:	2326 bp
RefSeq ORF:	1779 bp
Locus ID:	5590
UniProt ID:	Q05513
Cytogenetics:	1p36.33

Domains:	PB1, pkinase, S_TK_X, TyrKc, DAG_PE-bind, S_TKc
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> <p>Transcript Variant: This variant (1) encodes the longest isoform (1).</p>