

## Product datasheet for **SC323693**

### PKC epsilon (PRKCE) (NM\_005400) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PKC epsilon (PRKCE) (NM_005400) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC epsilon
Synonyms:	nPKC-epsilon; PKCE
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323693 sequence for NM\_005400 edited (data generated by NextGen Sequencing)

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ATGGTAGTGTTC AATGGCCTTCTTAAGATCAAAATCTGCGAGGCCGTGAGCTTGAAGCCC
ACAGCCTGGTCGCTGCGCCATGCGGTGGGACCCCGGCCGAGACTTTCCTTCTCGACCCC
TACATTGCCCTCAATGTGGACGACTCGCGCATCGGCCAAACGGCCACCAAGCAGAAGACC
AACAGCCCGGCCCTGGCACGACGAGTTCGTCAACCGATGTGTGCAACGGACGCAAGATCGAG
CTGGCTGTCTTTCACGATGCCCCATAGGCTACGACGACTTCGTGGCCAACTGCACCATC
CAGTTTGAGGAGCTGCTGCAGAACGGGAGCCGCCACTTCGAGGACTGGATTGATCTGGAG
CCAGAAGGAAGAGTGTATGTGATCATCGATCTCTCAGGGTCGTCGGGTGAAGCCCCATAA
GACAATGAAGAGCGTGTGTTTCAGGGAACGCATGCGGCCGAGGAAGCGGCAGGGGGCCGTC
AGGCGCAGGGTCCATCAGGTCAACGGCCACAAGTTCATGGCCACCTATCTTCGGCAGCCC
ACCTACTGCTCCCATTGCAGAGACTTCATCTGGGGTGTATAGGAAAGCAGGGATACCAG
TGTC AAGTCTGCACCTGCGTGGTCCACAAGCGGTGCCACGAGCTCATAATCACAAAGTGT
GCTGGGTTAAAGAAGCAGGAGACCCCGACCAGTGGGCTCCAGCGGTTACGCGTCAAC
ATGCCCCACAAGTTCGGTATCCACAACACAAGTCCCTACCTTCTGCGATCACTGTGGG
TCCTGTCTGGGACTCTTGCAGCAGGGTTTGCAGTGTAAAGTCTGCAAATGAATGTT
CACCGTCGATGTGAGACCAACGTGGCTCCCAACTGTGGAGTGGATGCCAGAGGAATCGCC
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AAGGTCATGTTGGCAGAACTCAAGGGCAAAGATGAAGTATATGCTGTGATGGTCTTAAAG
AAGGACGTCATCCTTCAGGATGATGACGTGGACTGCACAATGACAGAGAAGGATTTTG
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CGCCTCTTTTCGTCATGGAATATGTAATGGTGGAGACCTCATGTTTCAGATTCAGCGC
TCCCGAAAATTCGACGAGCCTCGTTCACGGTCTATGCTGCAGAGGTCACATCGGCCCTC
ATGTTCTCCACCAGCATGGAGTCATCTACAGGGATTTGAAACTGGACAACATCCTTCTG
GATGCAGAAGGTCAGTCAAGCTGGCTGACTTCGGGATGTGCAAGGAAGGGATTCTGAAT
GGTGTGACGACCACACGTTCTGTGGGACTCCTGACTACATAGCTCCTGAGATCCTGCAG
GAGTTGGAGTATGGCCCCCTCCGTGGACTGGTGGGCCCTGGGGGTGCTGATGTACGAGATG
ATGGCTGGACAGCCTCCCTTTGAGGCCGACAATGAGGACGACCTATTTGAGTCCATCCTC
CATGACGACGTGCTGTACCCAGTCTGGCTCAGCAAGGAGGCTGTGAGCATCTTGAAGCT
TTCATGACGAAGAATCCCAACAAGCGCCTGGGCTGTGTGGCATCGAGAATGGCGAGGAC
GCCATCAAGCAGCACCCATTCTTCAAAGAGATTGACTGGGTGCTCCTGGAGCAGAAGAAG
ATCAAGCCACCCTTCAAACCACGCATTAACCAAAAAGAGACGTCAATAATTTTGACCAA
GACTTTACCCGGGAAGAGCCGGTACTCACCTTGTGGACGAAGCAATTGTAAGCAGATC
AACCAGGAGGAATCAAAGGTTTCTCCTACTTTGGTGAAGACCTGATGCCCTGA
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Clone variation with respect to NM\_005400.2  
1310 a=>t

<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_005400 unedited ACGCCGTT CAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAC CGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCAAGAGTCCCTGTG GCTCGGAGTGCCGGGCCGTGGTTCTTCATTCTGCCCTCGGGCAGACGGAGTGACCCCGGCCCCACT CCCCGCCCCGACCATGGTAGTGTCAATGGCCTTCTTAAGATCAAATCTGCGAGGCCGTGAGCTTGAAG CCCACAGCCTGGTCGCTGCGCCATGCGGTGGGACCCCGGCCCGCAGACTTTTCCCTTCTCGACCCCTACA TTGCCCTCAATGGTGGACGACTCGGCATCGGCCAAACGGGCCACCAAGCAGAAGAACCAACAGCCCGG CCTGCAACGACGAAGTTGTCACCGATGGTGTGCACCGGACGCAGAATCGAAGCTGCCTGTCTCCCGAT GCCCCATAGGCAAGGACGAACCTGTTGCCACCTGGACCATCCAGTTGAGGAACTGGCGGCAAACCGGA GCCGCCACTTCAGAATGGAATGGACTGGAACCCAAGGAAAAGTGTATGATATCTCATTCTCCGGGCTCGC GGGTAAGCCCTAGACATGAGAAACCGTGGTTACGGAAACATCGCCAGAAACGCAGGGCCCTAGGCCGTCC TAGTACAGCCAATTTGGACTATTTGGCCCTAGGCCATGCGAACTATCTGGGTGCTAGAACAGGATAACAT GAATTGCCCTCGGGTCAACAGGTGCAGACTTTATCAATGTCGTTGAACCGAACGCATGGTCAGATACCAT GTCCAGCTGTCACTATGCACTGCATGTTCTTGGACTGGCG
<b>Kinase Domain Sequence:</b>	>SC323693 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation GRCGCTGGGCTGGWAGTTCACTTCATCAAGGTGTTGGGCAAAGGCAGCTTTGGCAAGGTCATGTTGGCA GAACTCAAGGGCAAAGATGAAGTATATGCTGTGATGGTCTTAAAGAAGGACGTCATCCTTCAGGATGATG ACGTGGACTGCACAATGACAGAGAAGAGGATTTGGCTCTGGCACGGAACACCCGTACCTTACCCAAC CTACTGCTGCTCCAGACCAAGGACCGCCTTTTTTCGTCATGGA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_005400
<b>Insert Size:</b>	5000 bp
<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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." <a href="#">Cell, 2008 May p536-548.</a>
<b>Components:</b>	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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005400.2</a> , <a href="#">NP_005391.1</a>
<b>RefSeq Size:</b>	5537 bp
<b>RefSeq ORF:</b>	2214 bp
<b>Locus ID:</b>	5581
<b>UniProt ID:</b>	<a href="#">Q02156</a>
<b>Cytogenetics:</b>	2p21
<b>Domains:</b>	C2, pkinase, S_TK_X, TyrKc, DAG_PE-bind, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Tight junction, Type II diabetes mellitus, Vascular smooth muscle contraction
<b>Gene Summary:</b>	<p>Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells. The protein encoded by this gene is one of the PKC family members. This kinase has been shown to be involved in many different cellular functions, such as neuron channel activation, apoptosis, cardioprotection from ischemia, heat shock response, as well as insulin exocytosis. Knockout studies in mice suggest that this kinase is important for lipopolysaccharide (LPS)-mediated signaling in activated macrophages and may also play a role in controlling anxiety-like behavior. [provided by RefSeq, Jul 2008]</p>