

## Product datasheet for **SC323579**

### PKC theta (PRKCQ) (NM\_006257) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PKC theta (PRKCQ) (NM_006257) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC theta
Synonyms:	nPKC-theta; PRKCT
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:** >NCBI ORF sequence for NM\_006257, the custom clone sequence may differ by one or more nucleotides

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ATGTGCCATTCTTCGGATTGGCTTGCCAACCTTTGACTGCGGGTCTGCCAGTCTTGCAGGGCGAGG
CTGTTAACCTTACTGTGCTGTGCTCGTCAAAGAGTATGTGCAATCAGAGAACGGGCAGATGTATCCA
GAAAAAGCCTACCATGTACCCACCTGGGACAGCACTTTTGATGCCCATATCAACAAGGGAAGATCATG
CAGATCATTGTGAAAGGCAAAAACGTGGACCTCATCTCTGAAACCACCGTGGAGCTCTACTCGCTGGCTG
AGAGGTGCAGGAAGAACAACGGGAAGACAGAAATATGGTTAGAGCTGAAACCTCAAGGCCGAATGCTAAT
GAATGCAAGATACTTTCTGAAAATGAGTGACACAAAGGACATGAATGAATTTGAGACGGAAGGCTCTTTT
GCTTTGCATCAGCGCCGGGTGCCATCAAGCAGGCAAAGGTCCACCACGTCAAGTCCACGAGTTCACTG
CCACCTTCTTCCACAGCCACATTTTGTCTGTCTGCCACGAGTTTGTCTGGGGCTGAACAAACAGGG
CTACCAGTGCCGACAATGCAATGCAGCAATTCACAAGAAGTGTATTGATAAAGTTATAGCAAAGTGACA
GGATCAGCTATCAATAGCCGAGAAACCATGTTCCACAAGGAGAGATTCAAAATTGACATGCCACACAGAT
TTAAAGTCTACAATTACAAGAGCCGACCTTCTGTGAACACTGTGGGACCCTGTGTGGGGACTGGCAGC
GCAAGGACTCAAGTGTGATGCATGTGGCATGAATGTGCATCATAGATGCCAGACAAGGTGGCCAACCTT
TGTGGCATAAACCAGAAGCTAATGGCTGAAGCGCTGGCCATGATTGAGAGCACTCAACAGGCTCGTGCT
TAAGAGATACTGAACAGATCTTCAGAGAAGGTCCGGTTGAAATGGTCTCCCATGCTCCATCAAAAATGA
AGCAAGGCCGCCATGTTTACCGACACCGGGAAAAAGAGAGCCTCAGGGCATTTTCTGGGAGTCTCCGTTG
GATGAGGTGGATAAAATGTGCCATCTTCCAGAACCTGAACTGAACAAAGAAAGACCATCTCTGCAGATTA
AACTAAAATGAGGATTTTATCTTGCACAAAATGTTGGGAAAGGAAGTTTGGCAAGGCTTCTCTGGC
AGAATTCAGAAAACCAATCAATTTTTCGCAATAAAGGCCTTAAGAAAGATGTGGTCTTGATGGACGAT
GATGTTGAGTGCACGATGGTAGAGAAGAGAGTTCTTCTTGGCCTGGGAGCATCCGTTTCTGACGCACA
TGTTTTGTACATTCCAGACCAAGGAAAACCTCTTTTTTGTGATGGAGTACCTCAACGGAGGGACTTAAT
GTACCACATCCAAGCTGCCACAAGTTCGACCTTTCAGAGCGACGTTTTATGCTGCTGAAATCATTCTT
GGTCTGCAGTTCCTTCATTCCAAGGAATAGTCTACAGGGACCTGAAGCTAGATAACATCCTGTTAGACA
AAGATGGACATATCAAGATCGCGGATTTTGAATGTGCAAGGAGAACATGTTAGGAGATGCCAAGACGAA
TACCTTCTGTGGGACACCTGACTACATCGCCCCAGAGATCTTGTGGTTCAGAAATAACCACTCTGTG
GACTGGTGGTCTTCCGGGTTCTCTTTATGAAATGCTGATTGGTCAGTCGCCTTCCACGGGCAGGATG
AGGAGGAGCTCTCCACTCCATCCGCATGGACAATCCCTTTTACCACGGTGGCTGGAGAAGGAAGCAAA
GGACCTTCTGGTGAAGCTCTTCTGTCGAGAACCTGAGAAGAGGCTGGGCGTGAGGGGAGACATCCGCCAG
CACCCTTTGTTTTCGGGAGATCAACTGGGAGGAACTTGAACGGAAGGAGATTGACCACCGTTCCGGCCGA
AAGTGAATCACCATTTGACTGCAGCAATTTCCGACAAAGAATTCTTAAACGAGAAGCCCCGGCTGTCTATT
TGCCGACAGAGCACTGATCAACAGCATGGACCAGAATATGTTTCAGGAACTTTTCTTTCATGAACCCGGG
ATGGAGCGGTGATATCCTGA
    
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**5' Read Nucleotide Sequence:**

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>OriGene 5' read for mutant NM_006257 unedited
ACCGCCGTTCTCAGCAAAGGGCGGTAGGCGCTGTACGGCTGGGAGGATCTATATAAGCAGAGCTCGTTT
AGTTGAACCGTCAGAATATTGTAATACGACTCACTATAGGGCGGCCGGAATACGGCACGAGGGCGCAGT
CCCAGCGCCACCGGGCAGCAGCGCGCCGTGCTCGCTCCAGGGCGCAACCATGTCGCCATTTCTTCGGAT
TGGCTTGCCAACCTTTGACTGCGGGTCTGCCAGTCTTGTGAGGGCGAGGCTGTTAACCTTACTGTGCT
GTGCTCGTCAAAGAGTATGTGCAATCAGAGAACGGGCAGATGTATATCCAGAAAAAGCCTACCATGTA
CCCACCCCTGGGACAGCACTTTTTGATGCCCCATATACCAAGGGAAGAGTCATGGCAGATCATTGTGA
AAAGGCAAAAACGTGGACCCTCATCTCTGAAACCACCGTGAACTTCTACTGGCTGCCTGAGAGGTTG
CAGGAGGAACACCGGAAGAAAGAAAAATGGTTAAAGCGGAAACCCCAAGGCCGAATGCTATTGATTGCAG
GATACTTTTTCGGGAATTGATTGCCCCAAAGGGCCTGGAATGAATTTGAAAACGAAAGGCCCTTTGTCTTT
GATAAGCGCCCGGGTGTGCATACAGACGCGAAAGGTCCCACCGTTAAAGTGCCGAGATTACTGGACATTT
TCCCAGCCCCAATTTGCTCTGTGCGCCAGTTTTCTGGGCCTAAACACGGTACCATGCGCGAATGATGTGC
ATTCAGAAAGTGTGTAATTTAGCATGCCGAGTCTCTATAGCGGAACCGTTCCAAAGGATCATATAGTGCC
ACGATAGGTCAATCAAAAAGCGCACCTGGAACCTGAAACGGTGGAGACATAGCGCAGCACCATTGACGTG
TCGTA
    
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<b>Kinase Domain Sequence:</b>	>SC323579 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 AWAACTAAAATTGAGGWTTTATCTTGCACAAAATGTTGGGGAAAGGAAGTTTTGGCAAGGTCTTCTGGC AGAATTCAGAAAACCAATCAATTTTTCGCAATAATGGCCTTAAAGAAAGATGTGGTCTTGATGGACGAT GATGTTGAGTGCACGATGGTAGAGAAGAGAGTTCTTTCCTTGGCCTGGGAGCATCCGTTTCTGACGCACA TGTTTTGTACATTCCAGACCAAGGAAAACCTCTTTTTTGTGATGG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_006257
<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_006257.2</a> , <a href="#">NP_006248.1</a>
<b>RefSeq Size:</b>	3273 bp
<b>RefSeq ORF:</b>	2121 bp
<b>Locus ID:</b>	5588
<b>UniProt ID:</b>	<a href="#">Q04759</a>
<b>Cytogenetics:</b>	10p15.1

<b>Domains:</b>	pkinase, S_TK_X, DAG_PE-bind
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transcription Factors
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, T cell receptor signaling pathway, Tight junction, 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. The protein encoded by this gene is one of the PKC family members. It is a calcium-independent and phospholipid-dependent protein kinase. This kinase is important for T-cell activation. It is required for the activation of the transcription factors NF-kappaB and AP-1, and may link the T cell receptor (TCR) signaling complex to the activation of the transcription factors. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) encodes the longest isoform (1). Variants 1 and 5 both encode the same isoform (1).</p>