

Product datasheet for **SC323473**

PKC eta (PRKCH) (NM_006255) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC eta (PRKCH) (NM_006255) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKC eta
Synonyms:	nPKC-eta; PKC-L; PKCL; PRKCL
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 SC323473 sequence for NM_006255 edited (data generated by NextGen Sequencing)

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ATGTCGCTGGCACCATGAAGTTCAATGGCTATTTGAGGGTCCGCATCGGTGAGGCAGTG
GGGCTGCAGCCCACCCGCTGGTCCCTGCGCCACTCGCTCTTCAAGAAGGGCCACCAGCTG
CTGGACCCTATCTGACGGTGAGCGTGGACCAGGTGCGCGTGGGCCAGACCAGCACCAAG
CAGAAGACCAACAACCCACGTACAACGAGGAGTTTTGCGCTAACGTACCGACGGCGGC
CACCTCGAGTTGGCCGTCTTCCACGAGACGCCCTGGGCTACGACCACTTCGTGGCCAAC
TGCACCCTGCAGTTCAGGAGCTGCTGCGCACGACCGGCCCTCGGACACCTTCGAGGGT
TGGGTGGATCTCGAGCCAGAGGGGAAAGTATTTGTGTAATAACCCCTTACCGGGAGTTTC
ACTGAAGTACTCTCCAGAGAGACCGGATCTTCAAACATTTTACCAGGAAGCGCCAAAGG
GCTATGCGAAGGCGAGTCCACCAGATCAATGGACACAAGTTTATGGCCACGTATCTGAGG
CAGCCCACCTACTGCTCTACTGCAGGGAGTTTATCTGGGGAGTGTGGGAAACAGGGT
TATCAGTGCCAAGTGTGCACCTGTGTCGCATAAACGCTGCCATCATCTAATTGTTACA
GCCTGTACTTGCCAAAACAATATTAACAAAGTGGATTCAAAGATTGCAGAACAGAGGTTT
GGGATCAACATCCCACACAAGTTCAGCATCCACAACACTACAAAGTGCCAACATTCTGCGAT
CACTGTGGCTCACTGCTCTGGGGAAATAATGCGACAAGGACTTCAGTGTAATAATGTAAA
ATGAATGTGCATATTCGATGTCAAGCGAACGTGGCCCTAACTGTGGGGTAAATGCGGGT
GAACTTGCCAAGACCCTGGCAGGGATGGGTCTCCAACCCGGAAATATTTCTCAACCTCG
AAACTCGTTTCCAGATCGACCCTAAGACGACAGGGAAAGGAGAGCAGCAAAGAAGGAAAT
GGGATTGGGGTTAATTCTTCCAACCGACTTGGTATCGACAACCTTGAGTTCATCCGAGTG
TTGGGGAAGGGGAGTTTTGGGAAGGTGATGCTTGAAGAGTAAAAGAAACAGGAGACCTC
TATGCTGTGATGGTGTGAAGAAGGACGTGATTCTGCAGGATGATGATGTGGAATGCACC
ATGACCGAGAAAAGGATCCTGTCTCTGGCCCGCAATCACCCCTTCTCACTCAGTTGTTT
TGCTGCTTTCAGACCCCGATCGTCTGTTTTTTGTGATGGAGTTTGTGAATGGGGGTGAC
TTGATGTTCCACATTCAGAAGTCTCGTCTTTTTGATGAAGCACGAGCTCGCTTCTATGCT
GCAGAAATCATTCGGCTCTCATGTTCCCTCCATGATAAAGGAATCATCTATAGAGATCTG
AAACTGGACAATGTCTGTTGGACCACGAGGGTCACTGTAACCTGGCAGACTTCGGAATG
TGCAAGGAGGGGATTTGCAATGGTGTACCACGGCCACATTCTGTGGCACGCCAGACTAT
ATCGCTCCAGAGATCCTCCAGGAAATGCTGTACGGGCTGCAGTAGACTGGTGGCAATG
GGCGTGTGCTCTATGAGATGCTCTGTGGTACGCGCCTTTTGGGCAGAGAATGAAGAT
GACCTCTTTGAGGCCATACTGAATGATGAGGTGGTCTACCCTACCTGGCTCCATGAAGAT
GCCACAGGGATCCTAAAATCTTTTCATGACCAAGAACCCCAACATGCGCTTGGGCAGCCTG
ACTCAGGGAGGGCAGCACGCCATCTTGAGACATCCTTTTTTTAAGGAAATCGACTGGGCC
CAGCTGAACCATCGCAAATAGAACCGCCTTTCAGACCCAGAATCAAATCCCGAGAAGAT
GTCAGTAATTTTGACCCTGACTTCATAAAGGAAGGCCAGTTTTAACTCCAATTGATGAG
GGACATCTTCCAATGATTAACCAGGATGAGTTTAGAACTTTTCTATGTGTCTCCAGAA
TTGCAACCATAG
    
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Clone variation with respect to NM_006255.3
 1151 a=>t;1674 c=>t

5' Read Nucleotide Sequence:	<p>>OriGene 5' read for mutant NM_006255 unedited</p> <pre> CCCCCGTCTCAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCCCGTTCTCCCG CTGCGAAGCAGCGCGGCCCGGGGGCCGGGACGCGGCCGGCATGTCGTCTGGCACCATGAAGTTCA ATGGCTATTTGAGGGTCCGCATCGGTGAGGCAGTGGGGCTGCAGCCCACCCGCTGGTCCCTGCGCCACTC GCTCTTCAAGAAGGGCCACCAGCTGCTGGACCCCTATCTGACGGTGAGCGTGACCAGGGTGCGGCGTGG GCCAGACCAGCACCAAGCAGAAGAACAACAACCCACGTACAACGAGGGAAGTTTTTGGCCTAACGTCA CCGACGCCGCGCCACCTCGATTTGGCCGTCTTCCCAAACGCCCCGTTTACAACCACTCTGGGCCA ATGGCCCTGGCATTCCAGAACCTGCGGCCCAACCGGGCCCTCGAAACCTTCAAGGTTGGGGGA TTCCGACCAAGGAAAGGTGTTGTGGGAAAACCTTTCCGGGAGTTTACTGGACCCACTCCCCAGAGA CCCCGGTCTTCAAACCTTAACGAGAACCCAGAGGAATGGAAGGAGCCCAAAATCTGTGACAATTTT GGGGCCTAGTATAGGCCACACCTCCATGGTATATAGGG </pre>
Kinase Domain Sequence:	<p>>SC323473 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</p> <pre> AMTCCGGRTGTGGGAGGGGAGTTTTGGGAAGGTGATGCTTGCAAGAGTAAAAGAAACAGGAGACCTCTA TGCTGTGATGGTCTGAAGAAGGACGTGATTCTGCAGGATGATGATGTGGAATGCACCATGACCGAGAAA AGGATCTGTCTTGCCCGCAATCACCCCTTCTCACTCAGTTGTTCTGCTGCTTTCAGACCCCGATC GTCTGTTTTTGTGATGGAGTTTGTGAATGGGGTGACTTGATGT </pre>
Restriction Sites:	Please inquire
ACCN:	NM_006255
Insert Size:	3500 bp
OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>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.</p>
Components:	<p>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).</p>

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_006255.3 , NP_006246.2
RefSeq Size:	3522 bp
RefSeq ORF:	2052 bp
Locus ID:	5583
UniProt ID:	P24723
Cytogenetics:	14q23.1
Domains:	C2, pkinase, S_TK_X, TyrKc, DAG_PE-bind, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Tight junction, Vascular smooth muscle contraction
Gene Summary:	<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. It is a calcium-independent and phospholipids-dependent protein kinase. It is predominantly expressed in epithelial tissues and has been shown to reside specifically in the cell nucleus. This protein kinase can regulate keratinocyte differentiation by activating the MAP kinase MAPK13 (p38delta)-activated protein kinase cascade that targets CCAAT/enhancer-binding protein alpha (CEBPA). It is also found to mediate the transcription activation of the transglutaminase 1 (TGM1) gene. Mutations in this gene are associated with susceptibility to cerebral infarction. [provided by RefSeq, Sep 2015]</p>