

Product datasheet for **SC116250**

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:

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>OriGene ORF sequence for NM_006255 edited
GCGGCCGCGAATTCGGCACGAGGCCGGTTCTCCCGCTGCGAAGCAGCGCGGCCCGGG
GGCCGGGGCAGCGGCCGCCGGCATGTCGTCTGGCACCATGAAGTTCAATGGCTATTTGAGG
GTCCGCATCGGTGAGGCAGTGGGGCTGCAGCCCACCCGCTGGTCCCTGCGCCACTCGTCT
TTCAAGAAAGGCCACCAGCTGCTGGACCCTATCTGACGGTGAGCGTGGACCAGGTGCGC
GTGGGCCAGACCAGCACAAGCAGAAGACCAACAAACCCACGTACAACGAGGAGTTTTGC
GCTAACGTCACCGACGGCGGCCACCTCGAGTTGGCCGCTTCCACGAGACGCCCTGGGC
TAGCACCACCTTCGTGGCCAACCTGCACCCTGCAGTTCAGGAGCTGCTGCGCACGACCGGC
GCCTCGGACACCTTCGAGGGTTGGGTGGATCTCGAGCCAGAGGGGAAAGTATTTGTGGTA
ATAACCCTTACCGGGAGTTTCACTGAAGCTACTCTCCAGAGAGACCGGATCTTCAAACAT
TTTACCAGGAAGCGCAAAGGGCTATGCGAAGGCGAGTCCACCAGATCAATGGACACAAG
TTCATGGCCACGTATCTGAGGCAGCCACCTACTGCTCTCACTGCAGGGAGTTTATCTGG
GGAGTGTGGGAAACAGGGTTATCAGTGCCAAGTGTGCACCTGTGTCGTCATAAACGC
TGCCATCATCTAATTGTTACAGCCTGTACTTGCCAAAACAATATTAACAAAGTGGATTCA
AAGATTGCAGAACAGAGGTTTCGGGATCAACATCCACACAAGTTCAGCATCCACAACCTAC
AAAGTGCCAACATTCTGCGATCACTGTGGCTCACTGCTCTGGGGAATAATGCGACAAGGA
CTTCAGTGTAATAATGTAAAATGAATGTGCATATTCGATGTCAAGCGAACGTGGCCCT
AACTGTGGGGTAAATGCGGTGGAACCTTGCCAAGACCTGGCAGGGATGGGTCTCCAACCC
GGAAATATTTCTCAACCTCGAACTCGTTTCCAGATCGACCCTAAGACGACAGGGAAAG
GAGAGCAGCAAAGAAGGAAATGGGATTGGGGTTAATTCTTCAACCGACTTGGTATCGAC
AACTTTGAGTTTCCAGAGTGTGGGGAAGGGAGTTTGGGAAGGTGATGCTTGAAGA
GTAAAAGAAACAGGAGACCTCTATGCTGTGAAGGTGCTGAAGAAGGACGTGATTCGCAG
GATGATGATGTGGAATGCACCATGACCGAGAAAAGGATCCTGTCTTGGCCCGCAATCAC
CCCTTCTCACTCAGTTGTTCTGCTGCTTTCAGACCCCGATCGTCTGTTTTTTGTGATG
GAGTTTGTGAATGGGGTGACTTGATGTTCCACATTCAGAAGTCTCGTCGTTTTGATGAA
GCACGAGCTCGTCTTATGCTGCAGAAATCATTTGCGCTCTCATGTTCTCCATGATAAA
GGAATCATCTATAGAGATCTGAACTGGACAATGTCTGTTGGACCACGAGGGTCACTGT
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TTCTGTGGCACGCCAGACTATATCGCTCCAGAGATCCTCCAGGAAATGCTGTACGGGCT
GCAGTAGACTGGTGGCAATGGGCGTGTGCTCTATGAGATGCTCTGTGGTCACGCGCT
TTTGAGGCAGAGAATGAAGATGACCTCTTTGAGGCCATACTGAATGATGAGGTGGTCTAC
CCTACCTGGCTCCATGAAGATGCCACAGGGATCCTAAAATCTTTTCATGACCAAGAACCC
ACCATGCGCTTGGGCAGCCTGACTCAGGGAGGCGAGCACGCCATCTTGAGACATCCTTTT
TTTAAGGAAATCGACTGGGCCAGCTGAACCATCGCCAAATAGAACCCTTTTTCAGACCC
AGAATCAAATCCCAGAGAAGATGTCAGTAATTTTGACCCTGACTTCATAAAGGAAGAGCCA
GTTTTAACTCAAATTGATGAGGGACATCTTCAATGATTAACCAGGATGAGTTTAGAAAC
TTTTCTATGTGTCTCCAGAATTGCAACCATAGCCTTATGGGGAGTGAGAGAGAGGGCAC
GAGAACCCAAAGGAATAGAGATTCTCCAGGAATTTCTCTATGGGACCTTCCCAGCATC
AGCCTTAGAACAAGAACCTTACCTTCAAGGAGCAAGTGAAGAATCTGTGAAGGATGGAA
CTTTCAGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_006255 unedited
 NGGGGTCAAATTTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGCCCGGT
 TCTCCCGCTGCGAACAGCGCGGCCCGGGGGCCGGGAGCGGCGCCGGCATGTCGTCT
 GGCACCATGAAGTTCAATGGCTATTTGAGGGTCCGCATCGGTGAGGCAGTGGGGCTGCAG
 CCCACCCGCTGGTCCCTGCGCCACTCGCTCTTCAAGAAGGGCCACCAGCTGCTGGACCCC
 TATCTGACGGTGAGCGTGGACCAGGTGCGCGTGGGCCAGACCAGCACCAAGCAGAAGACC
 AACAAACCCAGTACAACGAGGAGTTTTGCGCTAACGTACCCAGCGGCCGCCACCTCGAG
 TTGGCCGTCTTCCACGAGACGCCCTGGGCTACGACCACCTTCGTGGCCAACCTGCACCCTG
 CAGTTCAGGAGCTGCTGCGCACGACCGCGCCTCGGACACCTTCGAGGGTTGGGTGGAT
 CTCGAGCCAGAGGGGAAAGTATTTGTGGTAATAACCCCTTACCGGGAGTTTCACTGAAGCT
 ACTCTCCAGAGAGACCGGATCTTCAAACATTTTACCAGGAAGCGCCAAAGGGCTATGCGA
 AGGCGAGTCCACCAGATCAATGGACACAAGTTCATGGCCACGTATCTGAGGCAGCCCACC
 TACTGCTCTCACTGCAGGGAGTTTATCTGGGGAGTGTGGGAAACAGGGNTATCAGTGC
 CAAGTGTGCACCTGTGTCGTCCATAAACGCTGCCATCATCTAATTGTTACAGCCTGTACT
 TGCCAAAACAATATTAACAAAGTGGATTCAAAGATTGCAGAACAGAGTTCGGGGATCAAC
 ATCCCACACAAGTTCAGCATTACACTTACCAAGTGCCAACATTTCTGCGATCACTGTGGC
 TCACTGCTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_006255 unedited
 TTGTACGCGCCGATTCTANGATCGGTTTTTTTTTTTTTTTTTTTCTTTTGTACAAAA
 TGCATTTATTTCCAGTCAGACAAAATTCTGAAGTGTATATTCGGGTACATATTATAAGG
 TCATCTTTGATATATGCCCTGTTTACAAGATCCATTTCTAATTATAAAGTGAATATCAA
 ACACACATCTTTGCATCTTAAAACATAAATAAACTGCTAATGTTTATAAGCCACAATCT
 GGTCACTGACATGAGTGGCCTGCAATTCTCAGTGATGAGCACACGGCGATACAGACAAG
 ATCAGATTACCCAGGTAGGCAGGCAGCAGGCACCTGTAATTCACCCGCTGACTGTGCTGT
 TGTGGCAGTGACCCTTCTGTGAAAAAAGAGTTATGTGCAGACAAAAGTGTGACATATGC
 AACGTGGAGAGGCATTTACAGAATGCAAACACCATTAGGTAATTAGTAGACTCCAGA
 ATGAATGAAAGCTTCATGAATGCAAACCTGTTGTTTACAATACTGGGCATTGTGGCACCT
 TTTCACTGGACAGTTTAAATAAATATCTATTAAGAAAAGTAAGGATAAGAGAAGAAGCTGA
 AGCAGTCGTCTTGGTGCACAACATATTTTCAAGATTGGGCTTTAGGTTGTGAGTTTCAGA
 GATACCATTGTTTGTCTTTCAGAGTAATCATTCTATTTGGAAAAGCCCTTCATTTCCNNT
 AAAAGACCTTTAAATTCTCATTAGCATTAAAGACTTCTGTAGACTGCCAGGAATGGGG
 TTTTATTGGCTTTAAGAGAGCACGCACAGTTGACAGACGGTCTGGTTGTCTCTTGAATAA
 GAGGCTGATGGCTCAAATTTCTCAGATCACTTTATCTCCAACCTTCCCTCCTTTGGCTCT
 GGTAAACATCCAAGCCAAGAGACAGAGCTCCTAGTGGGACGTTTTCTCATAAATN

Restriction Sites:

NotI-NotI

ACCN:

NM_006255

Insert Size:

3500 bp

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](#)

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:

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:

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]