

Product datasheet for **RC205272**

PKC eta (PRKCH) (NM_006255) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKC eta (PRKCH) (NM_006255) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKC eta
Synonyms:	nPKC-eta; PKC-L; PKCL; PRKCL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC205272 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGTCGCTCTGGCACCATGAAGTTCAATGGCTATTTGAGGGTCCGCATCGGTGAGGCAGTGGGGCTGCAGC
 CCACCCGCTGGTCCCTGCGCCACTCGCTTTCAAGAAGGGCCACCAGCTGCTGGACCCCTATCTGACGGT
 GAGCGTGGACCAGGTGCGCGTGGGCCAGACCAGCACCAAGCAGAAGACCAACAAACCCACGTACAACGAG
 GAGTTTTGCGCTAACGTACCGACGCGGCCACCTCGAGTTGGCCGTCTTCCACGAGACGCCCTGGGCT
 ACGACCACTTCGTGGCAACTGCACCCTGCAGTTCAGGAGCTGCTGCGCAGCAGCCGGCCCTCGGACAC
 CTTGAGGGTTGGGTGGATCTCGAGCCAGAGGGGAAAGTATTCTGGTAATAACCCCTTACCGGGAGTTTC
 ACTGAAGTACTCTCCAGAGAGACCGGATCTTCAAACATTTTACCAGGAAGCGCCAAAGGGCTATGCGAA
 GCGGAGTCCACCAGATCAATGGACACAAGTTCATGGCCACGTATCTGAGGCAGCCCACTACTGCTCTCA
 CTGACGGGAGTTTATCTGGGAGTGTGGGAAACAGGGTTATCAGTGCCAAGTGTGCACCTGTGTCGTC
 CATAAACGCTGCCATCATCTAATTGTTACAGCCTGACTTGCCAAAACAATTAACAAAGTGGATTCAA
 AGATTGCAGAACAGAGGTTCCGGATCAACATCCCACACAAGTTCAGCATCCACAACCTACAAAAGTGCCAAC
 ATTCTGCGACTACTGTGGCTCACTGCTCTGGGGAATAATGCGACAAGGACTTCAGTGAAAAATGTAAA
 ATGAATGTGCATATTCGATGTCAAGCGAACGTGGCCCCTAACTGTGGGGTAAATGCGGTGGAACCTGGCA
 AGACCCCTGGCAGGGATGGGTCTCCAACCCGAAATATTTCTCAAACCTCGAAACTCGTTTCCAGATCGAC
 CCTAAGACGACAGGAAAGGAGAGCAGCAAAGAAGGAAATGGGATTGGGGTAAATCTTCCAACCGACTT
 GGTATCGACAACCTTTGAGTTCATCCGAGTGTGGGAAAGGGAGTTTTGGGAAGGTGATGCTTGAAGAG
 TAAAAGAAACAGGAGACCTCTATGCTGTGAAGGTGCTGAAGAAGGACGTATTCTGCAGGATGATGATGT
 GGAATGCACCATGACCGAGAAAAGGATCCTGTCTCTGGCCGCAATCACCCCTTCTCACTCAGTTGTTT
 TGCTGCTTTCAGACCCCGATCGTCTGTTTTTGTGATGGAGTTTGTGAATGGGGTGACTTGATGTTCC
 ACATTCAGAAGTCTCGTCTTTTGTGATGAAGCACGAGCTCGCTTCTATGCTGCAGAAATCATTTGCGTCT
 CATGTTCTCCATGATAAAGGAATCATCTATAGAGATCTGAAACTGGACAATGTCCTGTTGGACCACGAG
 GGTCACTGTAACCTGGCAGACTTCGGAATGTGCAAGGAGGGGATTTGCAATGGTGTACCACGGCCACAT
 TCTGTGGCAGCCAGACTATATCGCTCCAGAGATCCTCCAGGAAATGCTGTACGGCCCTGCAGTAGACTG
 GTGGGCAATGGGCGTGTGCTCTATGAGATGCTCTGTGGTACGCGCCTTTTGGGCAGAGAATGAAGAT
 GACCTCTTTGAGGCCATACTGAATGATGAGGTGGTCTACCCTACCTGGCTCCATGAAGATGCCACAGGGA
 TCCTAAAATCTTTTATGACCAAGAACCACCATGCGCTTGGGCAGCCTGACTCAGGAGGCGAGCACGC
 CATCTTGAGACATCCTTTTTTAAAGAAATCGACTGGGCCAGCTGAACCATCGCCAAATAGAACCAGCT
 TTCAGACCCAGAAATCAAATCCCAGAGAAGATGTCAGTAATTTTGGCCCTGACTTATAAAGGAAGAGCCAG
 TTTAACTCCAATTGATGAGGGACATCTTCCAATGATTAACCAGGATGAGTTTAAAGAACTTTTCTATGT
 GTCTCCAGAATTGCAACCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205272 protein sequence
 Red=Cloning site Green=Tags(s)

MSSGTMKFNGYLVRVIGEAVGLQPTRWSLRHSLFKKGHQLDPYLTVSVDQVRVGQTSTKQKTNKPTYNE
 EFCANVTDGGHLELAVFHETPLGYDHFVANCTLQFQELLRTTGASDTFEGWVDLEPEGKVFVVITLTGSF
 TEATLQRDRIFKHFTRKRQRAMRRRVHQINGHKFMATYLRQPTYCSHCREFIWGVFGKQGYQCQVCTCVV
 HKRCHHLIVTACTCQNNINKVDSKIAEQRFGINIPHKFSIHNYKVPTFCDHCGSLLWGI MRQGLQCKICK
 MNVHIRCQANVAPNCGVNAVELAKTLAGMGLQPGNISPTSKL VSRSTLRRQKESKEGNGIGVNSSNRL
 GIDNFEFIRVLGKGSFGKVM LARVKETGDL YAVKVLKDVILQDDDV ECTMTEKRILSLARNHPFLTQLF
 CCFQTPDRLFFVMEFVNGDLMFHIQKSRRFDEARARFYAAEIIISALMFLHDKGIIYRDLKLDNVLLDHE
 GHCKLADFGMCKEGICNGVTTATFCGTPDYIAPEILQEMLYGPVDWAMGVLLYEMLCGHAPFEAENED
 DLFEAILNDEVVYPTWLHEDATGILKSFMTKNPTMRLGSLTQGG EHA I LRHPFFKEIDWAQLNHRQIEPP
 FRPRIKSREDSNFDPDFIKEEPVLTPIDEGHLPMINQDEF RNF SYVSP ELQP

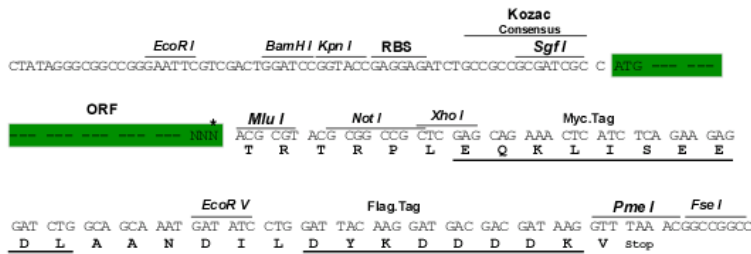
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6039_b10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006255

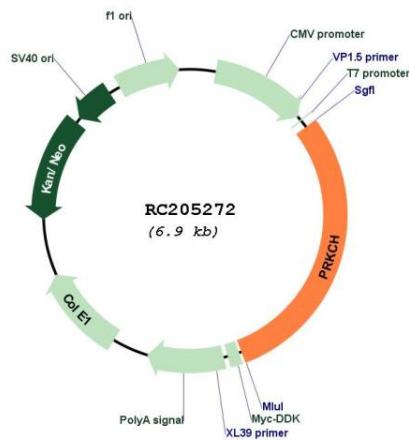
ORF Size: 2049 bp

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:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_006255.2
RefSeq Size:	3868 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
MW:	77.8 kDa

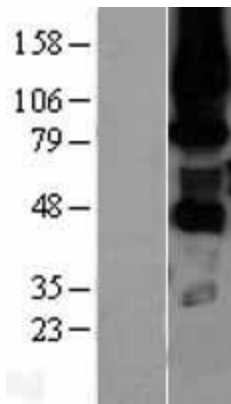
Gene Summary:

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]

Product images:



Circular map for RC205272



Western blot validation of overexpression lysate (Cat# [LY401883]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205272 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).