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Product datasheet for RC402800

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

Product data:

Product Type:	Mutant ORF Clones
Product Name:	PKC eta (PRKCH) (NM_006255) Human Mutant ORF Clone
Mutation Description:	v374I
Affected Codon#:	374
Affected NT#:	1120
Nucleotide Mutation:	PRKCH Mutant (v374I), Myc-DDK-tagged ORF clone of Homo sapiens protein kinase C, eta (PRKCH) as transfection-ready DNA
Effect:	Cerebral infarction, association with
Symbol:	PRKCH
Synonyms:	nPKC-eta; PKC-L; PKCL; PRKCL
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_006255
ORF Size:	2049 bp
Restriction Sites:	SgfI-MluI

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ORF Nucleotide Sequence:

>RC402800 representing NM_006255
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGTCTGGCACCATGAAGTTCAATGGCTATTTGAGGGTCCGCATCGGTGAGGCAGTGGGGCTGCAGC
CCACCCGCTGGTCCCTGCGCCACTCGCTCTTCAAGAAGGGCCACCAGCTGCTGGACCCCTATCTGACGGT
GAGCGTGGACCAGGTGCGCGTGGGCCAGACCAGCACCAAGCAGAAGACCAACAAACCCACGTACAACGAG
GAGTTTTGCGCTAACGTCACCGACGGCGGCCACCTCGAGTTGGCCGTCTTCCACGAGACGCCCCTGGGCT
ACGACCACTTCGTGGCCAACTGCACCCTGCAGTTCCAGGAGCTGCTGCGCACGACCGGCGCCTCGGACAC
CTTCGAGGGTTGGGTGGATCTCGAGCCAGAGGGGAAAGTATTTGTGGTAATAACCCTTACCGGGAGTTTC
ACTGAAGCTACTCTCCAGAGAGACCGGATCTTCAAACATTTTACCAGGAAGCGCCAAAGGGCTATGCGAA
GGCGAGTCCACCAGATCAATGGACACAAGTTCATGGCCACGTATCTGAGGCAGCCCACCTACTGCTCTCA
CTGCAGGGAGTTTATCTGGGGAGTGTTTGGGAAACAGGGTTATCAGTGCCAAGTGTGCACCTGTGTCGTC
CATAAACGCTGCCATCATCTAATTGTTACAGCCTGTACTTGCCAAAACAATATTAACAAAGTGGATTCAA
AGATTGCAGAACAGAGGTTCGGGATCAACATCCCACACAAGTTCAGCATCCACAACTACAAAGTGCCAAC
ATTCTGCGATCACTGTGGCTCACTGCTCTGGGGAATAATGCGACAAGGACTTCAGTGTAAAATATGTAAA
ATGAATGTGCATATTCGATGTCAAGCGAACGTGGCCCCTAACTGTGGGGTAAATGCGGTGGAACTTGCCA
AGACCCTGGCAGGGATGGGTCTCCAACCCGGAAATATTTCTCCAACCTCGAAACTCGTTTCCAGATCGAC
CCTAAGACGACAGGGAAAGGAGAGCAGCAAAGAAGGAAATGGGATTGGGGTTAATTCTTCCAACCGACTT
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TAAAAGAAACAGGAGACCTCTATGCTGTGAAGGTGCTGAAGAAGGACGTGATTCTGCAGGATGATGATGT
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TCTGTGGCACGCCAGACTATATCGCTCCAGAGATCCTCCAGGAAATGCTGTACGGGCCTGCAGTAGACTG
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GACCTCTTTGAGGCCATACTGAATGATGAGGTGGTCTACCCTACCTGGCTCCATGAAGATGCCACAGGGA
TCCTAAAATCTTTCATGACCAAGAACCCCACCATGCGCTTGGGCAGCCTGACTCAGGGAGGCGAGCACGC
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TTCAGACCCAGAATCAAATCCCGAGAAGATGTCAGTAATTTTGACCCTGACTTCATAAAGGAAGAGCCAG
TTTTAACTCCAATTGATGAGGGACATCTTCCAATGATTAACCAGGATGAGTTTAGAAACTTTTCCTATGT
GTCTCCAGAATTGCAACCA

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

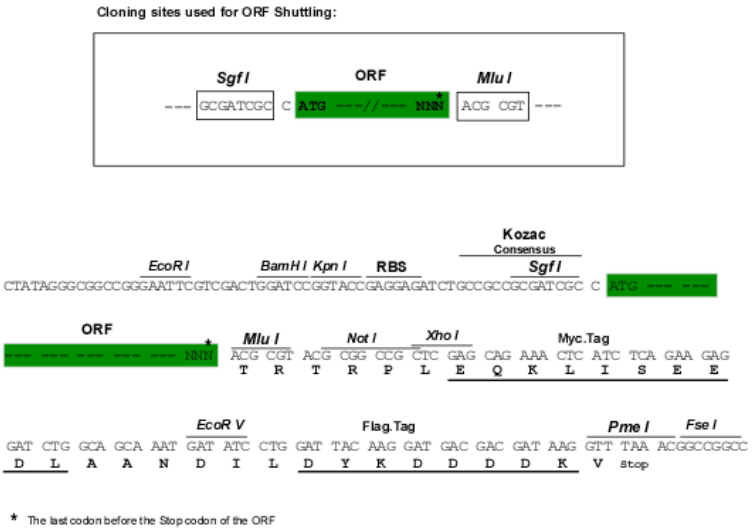
>RC402800 representing NM_006255
Red=Cloning site Green=Tags(s)

MSSGTMKFNGYLRVRIGEAVGLQPTRWSLRHSLFKKGHQLLDPYLTVSVDQVRVGQTSTKQKTNKPTYNE
EFCANVTDGGHLELAVFHETPLGYDHFVANCTLQFQELLRTTGASDTFEGWVDLEPEGKVFVVITLTGSF
TEATLQRDRIFKHFTRKRQRAMRRRVHQINGHKFMATYLRQPTYCSHCREFIWGVFGKQGYQCQVCTCVV
HKRCHHLIVTACTCQNNINKVDSKIAEQRFGINIPHKFSIHNYKVPTFCDHCGSLLWGIMRQGLQCKICK
MNVHIRCQANVAPNCGVNAVELAKTLAGMGLQPGNISPTSKLVSRSTLRRQGKESSKEGNGIGVNSSNRL
GIDNFEFIRVLGKGSFGKVMLARIKETGDLYAVKVLKKDVILQDDDVECTMTEKRILSLARNHPFLTQLF
CCFQTPDRLFFVMEFVNGGDLMFHIQKSRRFDEARARFYAAEIISALMFLHDKGIIYRDLKLDNVLLDHE
GHCKLADFGMCKEGICNGVTTATFCGTPDYIAPEILQEMLYGPAVDWWAMGVLLYEMLCGHAPFEAENED
DLFEAILNDEVVYPTWLHEDATGILKSFMTKNPTMRLGSLTQGGEHAILRHPFFKEIDWAQLNHRQIEPP
FRPRIKSREDVSNFDPDFIKEEPVLTPIDEGHLPMINQDEFRNFSYVSPELQP

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

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).

RefSeq: NP_006246

RefSeq Size: 2049 bp

RefSeq ORF: 2052 bp

Locus ID: 5583

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: 75.1 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]