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# Product datasheet for RC217702

## PKC epsilon (PRKCE) (NM_005400) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | PKC epsilon (PRKCE) (NM_005400) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | PKC epsilon |
| **Synonyms:** | nPKC-epsilon; PKCE |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |



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**ORF Nucleotide Sequence:**

>RC217702 representing NM_005400
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTAGTGTTCAATGGCCTTCTTAAGATCAAAATCTGCGAGGCCGTGAGCTTGAAGCCCACAGCCTGGT
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CGACTCGCGCATCGGCCAAACGGCCACCAAGCAGAAGACCAACAGCCCGGCCTGGCACGACGAGTTCGTC
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TCGTGGCCAACTGCACCATCCAGTTTGAGGAGCTGCTGCAGAACGGGAGCCGCCACTTCGAGGACTGGAT
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CGGTGCCACGAGCTCATAATCACAAAGTGTGCTGGGTTAAAGAAGCAGGAGACCCCCGACCAGGTGGGCT
CCCAGCGGTTCAGCGTCAACATGCCCCACAAGTTCGGTATCCACAACTACAAGGTCCCTACCTTCTGCGA
TCACTGTGGGTCCCTGCTCTGGGGACTCTTGCGGCAGGGTTTGCAGTGTAAAGTCTGCAAAATGAATGTT
CACCGTCGATGTGAGACCAACGTGGCTCCCAACTGTGGAGTGGATGCCAGAGGAATCGCCAAAGTACTGG
CCGACCTGGGCGTTACCCCAGACAAAATCACCAACAGCGGCCAGAGAAGGAAAAAGCTCATTGCTGGTGC
CGAGTCCCCGCAGCCTGCTTCTGGAAGCTCACCATCTGAGGAAGATCGATCCAAGTCAGCACCCACCTCC
CCTTGTGACCAGGAAATAAAAGAACTTGAGAACAACATTCGGAAAGCCTTGTCATTTGACAACCGAGGAG
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AGGCCAGGCCAAGCGCCTGGGCCTGGATGAGTTCAACTTCATCAAGGTGTTGGGCAAAGGCAGCTTTGGC
AAGGTCATGTTGGCAGAACTCAAGGGCAAAGATGAAGTATATGCTGTGAAGGTCTTAAAGAAGGACGTCA
TCCTTCAGGATGATGACGTGGACTGCACAATGACAGAGAAGAGGATTTTGGCTCTGGCACGGAAACACCC
GTACCTTACCCAACTCTACTGCTGCTTCCAGACCAAGGACCGCCTCTTTTTCGTCATGGAATATGTAAAT
GGTGGAGACCTCATGTTTCAGATTCAGCGCTCCCGAAAATTCGACGAGCCTCGTTCACGGTTCTATGCTG
CAGAGGTCACATCGGCCCTCATGTTCCTCCACCAGCATGGAGTCATCTACAGGGATTTGAAACTGGACAA
CATCCTTCTGGATGCAGAAGGTCACTGCAAGCTGGCTGACTTCGGGATGTGCAAGGAAGGGATTCTGAAT
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GCAGAAGAAGATCAAGCCACCCTTCAAACCACGCATTAAAACCAAAAGAGACGTCAATAATTTTGACCAA
GACTTTACCCGGGAAGAGCCGGTACTCACCCTTGTGGACGAAGCAATTGTAAAGCAGATCAACCAGGAGG
AATTCAAAGGTTTCTCCTACTTTGGTGAAGACCTGATGCCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217702 representing NM_005400
Red=Cloning site Green=Tags(s)

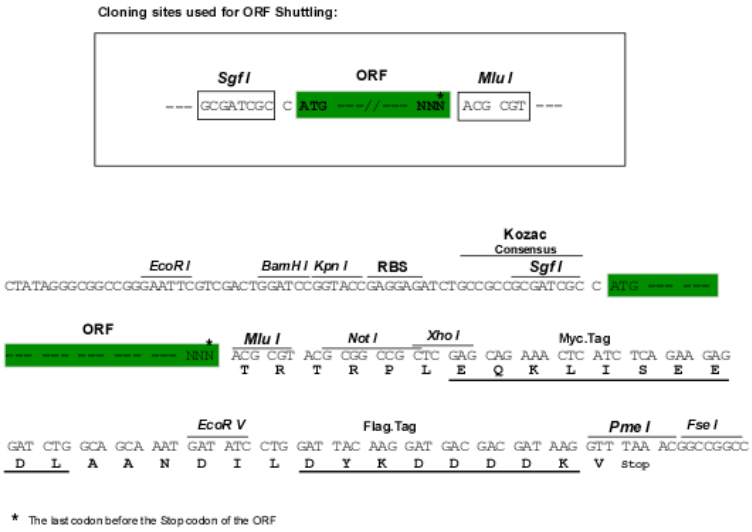
MVVFNGLLKIKICEAVSLKPTAWSLRHAVGPRPQTFLLDPYIALNVDDSRIGQTATKQKTNSPAWHDEFV
TDVCNGRKIELAVFHDAPIGYDDFVANCTIQFEELLQNGSRHFEDWIDLEPEGRVYVIIDLSGSSGEAPK
DNEERVFRERMRPRKRQGAVRRRVHQVNGHKFMATYLRQPTYCSHCRDFIWGVIGKQGYQCQVCTCVVHK
RCHELIITKCAGLKKQETPDQVGSQRFSVNMPHKFGIHNYKVPTFCDHCGSLLWGLLRQGLQCKVCKMNV
HRRCETNVAPNCGVDARGIAKVLADLGVTPDKITNSGQRRKKLIAGAESPQPASGSSPSEEDRSKSAPTS
PCDQEIKELENNIRKALSFDNRGEEHRAASSPDGQLMSPGENGEVRQGQAKRLGLDEFNFIKVLGKGSFG
KVMLAELKGKDEVYAVKVLKKDVILQDDDVDCTMTEKRILALARKHPYLTQLYCCFQTKDRLFFVMEYVN
GGDLMFQIQRSRKFDEPRSRFYAAEVTSALMFLHQHGVIYRDLKLDNILLDAEGHCKLADFGMCKEGILN
GVTTTTFCGTPDYIAPEILQELEYGPSVDWWALGVLMYEMMAGQPPFEADNEDDLFESILHDDVLYPVWL
SKEAVSILKAFMTKNPHKRLGCVASQNGEDAIKQHPFFKEIDWVLLEQKKIKPPFKPRIKTKRDVNNFDQ
DFTREEPVLTLVDEAIVKQINQEEFKGFSYFGEDLMP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk6104_a02.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



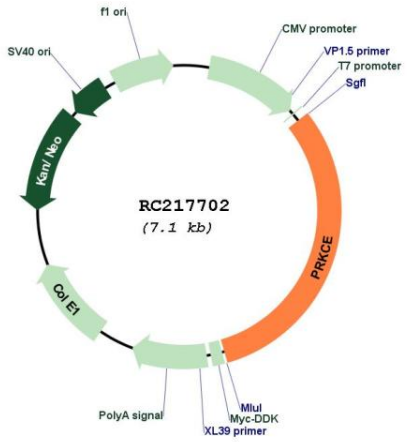

**ACCN:** NM_005400

**ORF Size:** 2211 bp

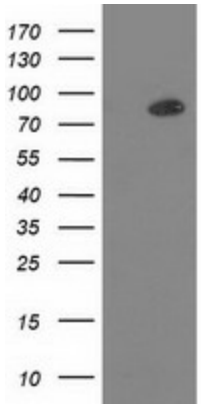
| | |
|---|---|
| **OTI Disclaimer:** | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional 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.<br><br>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). |
| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_005400.3 |
| **RefSeq Size:** | 5537 bp |
| **RefSeq ORF:** | 2214 bp |
| **Locus ID:** | 5581 |
| **UniProt ID:** | Q02156 |
| **Cytogenetics:** | 2p21 |
| **Domains:** | C2, pkinase, S_TK_X, TyrKc, DAG_PE-bind, S_TKc |
| **Protein Families:** | Druggable Genome, Protein Kinase |
| **Protein Pathways:** | Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Tight junction, Type II diabetes mellitus, Vascular smooth muscle contraction |
| **MW:** | 83.5 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. This kinase has been shown to be involved in many different cellular functions, such as neuron channel activation, apoptosis, cardioprotection from ischemia, heat shock response, as well as insulin exocytosis. Knockout studies in mice suggest that this kinase is important for lipopolysaccharide (LPS)-mediated signaling in activated macrophages and may also play a role in controlling anxiety-like behavior. [provided by RefSeq, Jul 2008]

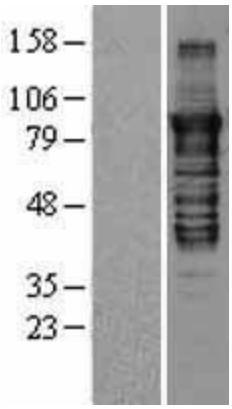
## Product images:



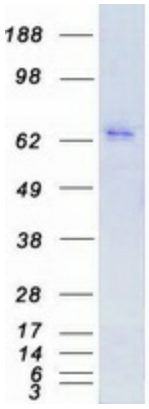

Circular map for RC217702




HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PRKCE (Cat# RC217702, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PRKCE(Cat# [TA502437]). Positive lysates [LY401658] (100ug) and [LC401658] (20ug) can be purchased separately from OriGene.




Western blot validation of overexpression lysate (Cat# [LY401658]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217702 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified PRKCE protein (Cat# [TP317702]). The protein was produced from HEK293T cells transfected with PRKCE cDNA clone (Cat# RC217702) using MegaTran 2.0 (Cat# [TT210002]).