

Product datasheet for **RG217702**

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:	TurboGFP
Symbol:	PKC epsilon
Synonyms:	nPKC-epsilon; PKCE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG217702 representing NM_005400
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTAGTGTTCAATGGCCTTCTTAAGATCAAATCTGCGAGGCCGTGAGCTTGAAGCCACAGCCTGGT
 CGCTGCGCCATGCGGTGGGACCCCGGCCGAGACTTTCCTTCTCGACCCCTACATTGCCCTCAATGTGGA
 CGACTCGCGCATCGGCCAAACGGCCACCAAGCAGAAGACCAACAGCCCGCCTGGCACGACGAGTTCGTC
 ACCGATGTGTGAACGGACGCAAGATCGAGCTGGCTGTCTTTCACGATGCCCCCATAGGCTACGACGACT
 TCGTGGCCAACTGCACCATCCAGTTTGGAGAGCTGCTGCAGAACGGGAGCCGCCACTTCGAGGACTGGAT
 TGATCTGGAGCCAGAAGGAAGAGTGTATGTGATCATCGATCTCTCAGGGTCGTCGGGTGAAGCCCTAAA
 GACAATGAAGAGCGTGTGTTAGGGAACGCATGCGGCCGAGGAAGCGGCAGGGGGCCGTCAGGCGCAGGG
 TCCATCAGGTCAACGGCCACAAGTTCATGGCCACCTATCTTCGGCAGCCACCTACTGCTCCATTGCGAG
 AGACTTCACTGGGGTGCATAGGAAAGCAGGGATACCAGTGTCAAGTCTGCACCTCGTGTGCCACAAG
 CCGTGCCACGAGCTCATAATCACAAAGTGTGCTGGGTTAAAGAAGCAGGAGACCCCGACCAAGTGGGCT
 CCCAGCGGTTACGCGTCAACATGCCCCACAAGTTCGGTATCCACAACCTACAAGTCCCTACCTTCTGCGA
 TCACTGTGGGTCCTGCTCTGGGACTCTTGGCGCAGGGTTTGCAGTGTAAAGTCTGCAAAATGAATGTT
 CACCGTCGATGTGAGACCAACGTGGCTCCCAACTGTGGAGTGGATGCCAGAGGAATCGCCAAAGTACTGG
 CCGACCTGGGCGTTACCCAGACAAAATCACCAACAGCGGCCAGAGAAGGAAAAGCTCATTGCTGGTGC
 CGAGTCCCGCAGCCTGCTTCTGGAAGCTACCATCTGAGGAAGATCGATCCAAGTCAGCACCCACCTCC
 CCTTGTGACCAGGAAAATAAAGAAGTGAAGAACAATTCGGAAGCCTTGTCAATTTGACAACCGAGGAG
 AGGACACCGGGCAGCATCGTCTCTGATGGCCAGCTGATGAGCCCGGTGAGAATGGCGAAGTCCGGCA
 AGGCCAGGCCAAGCGCCTGGGCCCTGGATGAGTTCAACTTCATCAAGGTGTTGGGCAAGGCAGCTTGGC
 AAGGTCATGTTGGCAGAAGTCAAGGGCAAAGATGAAGTATATGCTGTGAAGGTCTTAAAGAAGGACGTCA
 TCCTTCAGGATGATGACGTGGACTGCACAATGACAGAGAAGAGGATTTTGGCTCTGGCACGGAAACACC
 GTACCTTACCCAACCTACTGCTGCTTCCAGACCAAGGACCGCCTCTTTTTCGTCATGGAATATGTAAT
 GGTGGAGACCTCATGTTTCAGATTCAGCGCTCCCGAAAATTCGACGAGCCTCGTTCACGGTTCATGCTG
 CAGAGGTCACATCGGCCCTCATGTTCTCCACCAGCATGGAGTCACTACAGGGATTTGAAACTGGACAA
 CATCCTTCTGGATGCAGAAGTCACTGCAAGCTGGCTGACTTCGGGATGTGCAAGGAAGGGATTCTGAAT
 GGTGTGACGACCACACGTTCTGTGGACTCCTGACTACATAGCTCCTGAGATCCTGCAGGAGTTGGAGT
 ATGGCCCCCTCCGTGGACTGGTGGCCCTGGGGGTGCTGATGTACGAGATGATGGCTGGACAGCCTCCCTT
 TGAGGCCGACAATGAGGACGACCTATTTGAGTCCATCCTCCATGACGACGTGCTGTACCCAGTCTGGCTC
 AGCAAGGAGGCTGTGAGCATCTTGAAGCTTTCATGACGAAGAATCCCCACAAGCGCCTGGGCTGTGTGG
 CATCGCAGAAATGGCGAGGACGCCATCAAGCAGCACCCATTCTTCAAAGAGATTGACTGGGTGCTCCTGGA
 GCAGAAGAAGTCAAGCCACCCTTCAAACCACGCATTAACCAAAAGAGACGTCAATAATTTTGACCAA
 GACTTTACCCGGGAAGAGCCGCTACTCACCTTGTGGACGAAGCAATTGTAAGCAGATCAACCAGGAGG
 AATTCAAAGGTTTCTCTACTTTGGTGAAGACCTGATGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217702 representing NM_005400
 Red=Cloning site Green=Tags(s)

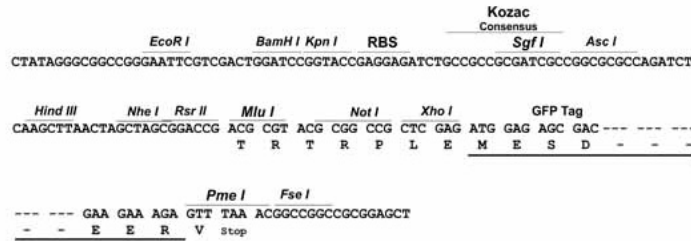
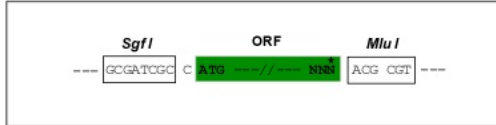
MVVFNGLLKIKICEAVSLKPTAWSLRHAVGPRPQTFLLDPYIALNVDDSRIGQTATKQKTNSPAWHDEFV
 TDVCNGRKIELAVFHDAPIGYDDFVANCTIQFEELLQNGSRHFEDWIDLEPEGRVYVIIDLSGSSGEAPK
 DNEERVFREMRPRKRQGAVERRRVHQVNGHKFMATYLRQPTYCSHCRDFIWGVIGKQGYQCQVCTCVVHK
 RCHELIITKCAGLKKQETPDQVGSQRF SVNMPHKFGIHNKVPVTFCDHCGSLLWGLLRQGLQCKVCKMNV
 HRRCETNVAPNCGVDARGIAKVLADLGVTPDKITNSGQRRKLIAGAESPQPASGSSPSEEDRSKSAPTS
 PCDQEIKELENNIRKALSFDNRGEEHRAASSPDGQLMSPGENGEVVRQGQAKRLGLDEFNFIKVLGKGSFG
 KVMLAELKKGDEVYAVKVLKDDVILQDDVDVCTMTEKRILALARKHPYLTQLYCCFQTKDRLFFVMEYVN
 GGDLMFQIQRSRKFDEPRSRFYAAEVT SALMFLHQHGVIYRDLKLDNILLDAEGHCKLADF GMCKEGILN
 GVT TTTFCGTPDYIAPEILQELEYGPSVDWWALGVL MYEMMAGQPPFEADNEDDLFESILHDDVL YPVWL
 SKEAVSILKAFMTKNPHKRLGCVASQNGEDA IKQHPFFKEIDWVLLQKKIKPPFKPRIKTRD VNNFDQ
 DFTREEPVLT LVDEAIVKQINQEEFKGFSYFGEDLMP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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.

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.
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_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

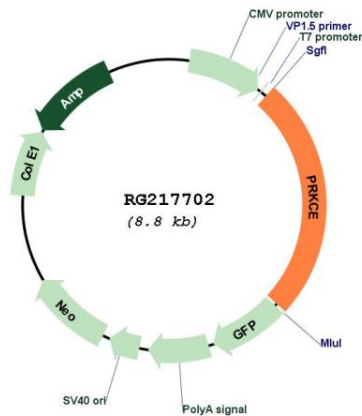
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Tight junction, Type II diabetes mellitus, Vascular smooth muscle contraction

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 RG217702