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Product datasheet for MC221225

Prkce (NM_011104) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prkce (NM_011104) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Prkce
Synonyms:	5830406C15Rik; Pkce; PKCepsilon; PKC[e]; R75156
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>MC221225 representing NM_011104
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGTAGTGTTCAATGGCCTTCTTAAGATCAAAATCTGCGAGGCGGTGAGCTTGAAGCCCACAGCCTGGT
CGCTGCGCCATGCGGTGGGACCCCGGCCACAGACGTTCCTTTTGGACCCCTACATTGCCCTTAACGTGGA
CGACTCGCGCATCGGCCAAACAGCCACCAAGCAAAAGACCAACAGCCCGGCCTGGCACGATGAGTTCGTC
ACCGATGTGTGCAATGGGCGCAAGATCGAGCTGGCTGTCTTTCACGACGCTCCTATCGGCTACGACGACT
TCGTGGCCAACTGCACCATCCAGTTCGAGGAGCTGCTGCAGAATGGGAGCCGTCACTTCGAGGACTGGAT
TGACCTGGAGCCAGAAGGAAAAGTGTACGTGATCATCGATCTCTCGGGATCATCGGGTGAAGCCCCTAAA
GACAATGAAGAACGAGTGTTCAGGGAGCGTATGCGGCCAAGGAAGCGGCAAGGGGCTGTCAGGCGCAGGG
TCCACCAGGTCAATGGCCACAAGTTCATGGCCACCTACTTGCGGCAACCCACCTACTGCTCCCACTGCAG
AGATTTCATCTGGGGTGTCATAGGAAAACAGGGATATCAATGTCAAGTTTGCACTTGCGTTGTCCACAAG
CGATGTCATGAGCTCATTATTACAAAGTGCGCTGGGCTGAAGAAACAGGAAACCCCTGACGAGGTGGGCT
CCCAACGGTTCAGCGTCAACATGCCCCACAAGTTCGGGATCCACAACTACAAGGTCCCCACGTTCTGTGA
CCACTGTGGGTCCCTGCTCTGGGGCCTCTTGCGGCAGGGCTTGCAGTGTAAAGTCTGCAAAATGAATGTT
CACCGGCGATGTGAGACCAATGTGGCTCCCAACTGTGGGGTAGACGCCAGAGGAATTGCCAAAGTGCTGG
CTGACCTTGGTGTTACTCCAGACAAAATCACCAACAGTGGCCAAAGGAGGAAAAAGCTCGCTGCTGGTGC
TGAGTCCCCACAGCCGGCTTCTGGAAACTCCCCATCTGAAGACGACCGATCCAAGTCAGCGCCCACCTCC
CCTTGTGACCAGGAACTAAAAGAACTTGAAAACAACATTCGGAAGGCCTTGTCATTTGACAACCGAGGAG
AGGAGCACCGAGCGTCGTCGGCCACCGATGGCCAGCTGGCAAGCCCCGGAGAGAACGGGGAAGTCCGGCC
AGGCCAGGCCAAGCGCTTGGGGCTGGATGAGTTCAACTTCATCAAGGTGTTGGGCAAAGGCAGCTTTGGC
AAGGTCATGTTGGCGGAACTCAAAGGCAAAGATGAAGTCTACGCTGTGAAGGTCTTGAAGAAGGACGTTA
TCCTACAAGACGATGATGTGGACTGCACAATGACAGAGAAGAGGATTTTGGCTCTGGCTCGGAAACACCC
TTATCTAACCCAACTCTATTGCTGCTTCCAGACCAAGGACCGCCTCTTCTTCGTCATGGAATATGTAAAT
GGTGGAGACCTCATGTTCCAGATTCAGCGGTCCCGAAAATTTGATGAGCCTCGTTCTCGGTTCTATGCCG
CAGAGGTCACATCAGCCCTCATGTTTCTCCACCAGCACGGAGTGATCTACAGGGATTTGAAACTGGACAA
CATCCTTCTAGATGCAGAAGGCCACTGCAAGCTGGCTGACTTTGGGATGTGCAAGGAAGGGATTATGAAT
GGTGTGACAACTACCACCTTCTGTGGGACTCCTGACTACATAGCTCCAGAGATCCTACAGGAGTTGGAGT
ACGGCCCCTCAGTGGACTGGTGGGCCCTGGGGGTGCTGATGTACGAGATGATGGCTGGGCAGCCCCCCTT
TGAAGCTGACAACGAGGACGACTTGTTCGAATCCATCCTTCATGATGATGTTCTCTATCCTGTCTGGCTT
AGCAAGGAAGCTGTCAGCATCCTGAAAGCTTTCATGACCAAGAACCCGCACAAGCGCCTGGGCTGTGTGG
CAGCGCAGAACGGGGAGGACGCCATCAAGCAACATCCATTCTTCAAGGAGATTGACTGGGTACTGCTGGA
GCAGAAGAAAATCAAGCCCCCCTTCAAGCCGAGAATTAAAACCAAAAGAGATGTCAATAACTTTGACCAA
GACTTTACGCGGGAAGAGCCAATACTTACACTTGTGGATGAAGCAATCATTAAGCAGATCAACCAGGAAG
AATTCAAAGGCTTCTCCTACTTTGGTGAAGACCTGATGCCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_011104

Insert Size: 2214 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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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_011104.3, NP_035234.1
RefSeq Size:	6254 bp
RefSeq ORF:	2214 bp
Locus ID:	18754
UniProt ID:	P16054
Cytogenetics:	17 E4

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Gene Summary: Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that plays essential roles in the regulation of multiple cellular processes linked to cytoskeletal proteins, such as cell adhesion, motility, migration and cell cycle, functions in neuron growth and ion channel regulation, and is involved in immune response, cancer cell invasion and regulation of apoptosis. Mediates cell adhesion to the extracellular matrix via integrin-dependent signaling, by mediating angiotensin-2-induced activation of integrin beta-1 (ITGB1) in cardiac fibroblasts. Phosphorylates MARCKS, which phosphorylates and activates PTK2/FAK, leading to the spread of cardiomyocytes. Involved in the control of the directional transport of ITGB1 in mesenchymal cells by phosphorylating vimentin (VIM), an intermediate filament (IF) protein. In epithelial cells, associates with and phosphorylates keratin-8 (KRT8), which induces targeting of desmoplakin at desmosomes and regulates cell-cell contact. Phosphorylates IQGAP1, which binds to CDC42, mediating epithelial cell-cell detachment prior to migration. During cytokinesis, forms a complex with YWHAB, which is crucial for daughter cell separation, and facilitates abscission by a mechanism which may implicate the regulation of RHOA. In cardiac myocytes, regulates myofilament function and excitation coupling at the Z-lines, where it is indirectly associated with F-actin via interaction with COPB1. During endothelin-induced cardiomyocyte hypertrophy, mediates activation of PTK2/FAK, which is critical for cardiomyocyte survival and regulation of sarcomere length. Plays a role in the pathogenesis of dilated cardiomyopathy via persistent phosphorylation of troponin I (TNNI3). Involved in nerve growth factor (NFG)-induced neurite outgrowth and neuron morphological change independently of its kinase activity, by inhibition of RHOA pathway, activation of CDC42 and cytoskeletal rearrangement. May be involved in presynaptic facilitation by mediating phorbol ester-induced synaptic potentiation. Phosphorylates gamma-aminobutyric acid receptor subunit gamma-2 (GABRG2), which reduces the response of GABA receptors to ethanol and benzodiazepines and may mediate acute tolerance to the intoxicating effects of ethanol. Upon PMA treatment, phosphorylates the capsaicin- and heat-activated cation channel TRPV1, which is required for bradykinin-induced sensitization of the heat response in nociceptive neurons. Is able to form a complex with PDLIM5 and N-type calcium channel, and may enhance channel activities and potentiates fast synaptic transmission by phosphorylating the pore-forming alpha subunit CACNA1B (CaV2.2). Downstream of TLR4, plays an important role in the lipopolysaccharide (LPS)-induced immune response by phosphorylating and activating TICAM2/TRAM, which in turn activates the transcription factor IRF3 and subsequent cytokines production. In differentiating erythroid progenitors, is regulated by EPO and controls the protection against the TNFSF10/TRAIL-mediated apoptosis, via BCL2. May be involved in the regulation of the insulin-induced phosphorylation and activation of AKT1. [UniProtKB/Swiss-Prot Function]

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