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Product datasheet for MC220320

Prkcd (NM_011103) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prkcd (NM_011103) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Prkcd
Synonyms:	AI385711; D14Ertd420e; Pkcd; PKCdelta; PKC[d]
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>MC220320 representing NM_011103
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCACCCTTCCTGCGCATCTCCTTCAATTCCTATGAGCTGGGCTCCCTGCAAGTTGAGGACGAAGCAA
GCCAGCCTTTCTGTGCTGTGAAGATGAAGGAGGCACTCAGCACAGAGCGAGGGAAGACACTGGTACAGAA
GAAGCCCACCATGTATCCTGAGTGGAAGACAACGTTCGACGCCCACATCTATGAAGGCCGTGTTATCCAG
ATTGTGCTGATGCGGGCAGCTGAAGACCCCGTGTCTGAGGTCACGGTGGGCGTGTCAGTACTGGCTGAGC
GCTGCAAGAAGAACAACGGCAAGGCTGAGTTCTGGCTGGATCTGCAGCCTCAGGCCAAGGTGCTGATGTG
TGTGCAGTATTTCCTGGAGGATGGGGATTGCAAACAGTCTATGCGTAGTGAGGAGGAGGCAAAGTTTCCA
ACCATGAACCGTCGTGGAGCCATTAAACAGGCCAAGATCCACTACATCAAGAACCACGAGTTTATCGCCA
CCTTCTTCGGGCAGCCCACCTTCTGTTCTGTGTGCAAAGAGTTTGTCTGGGGCCTCAACAAGCAAGGCTA
CAAATGCAGGCAATGCAACGCTGCCATCCACAAGAAATGCATTGACAAGATTATCGGCCGCTGCACTGGC
ACTGCCACCAATAGCCGGGACACCATCTTCCAGAAAGAACGCTTCAACATCGACATGCCTCACCGATTCA
AGGTTTATAACTACATGAGCCCCACCTTCTGTGACCACTGTGGCAGTTTGCTCTGGGGACTGGTGAAGCA
GGGATTAAAGTGTGAAGATTGTGGCATGAATGTGCACCACAAATGCCGGGAGAAGGTGGCCAACCTGTGT
GGTATCAACCAAAAGCTCTTGGCTGAGGCCTTGAACCAAGTGACCCAGAGATCTTCCCGGAAGCTGGACA
CAACAGAGTCTGTCGGAATATACCAGGGATTTGAGAAGAAGCCAGAAGTCTCTGGGAGTGACATCCTAGA
CAACAACGGGACCTATGGCAAGATCTGGGAGGGGAGCACCCGGTGCACCCTTGAGAACTTCACCTTCCAA
AAAGTACTTGGCAAAGGCAGCTTTGGCAAGGTGCTGCTGGCAGAGCTGAAGGGCAAAGACAAGTACTTTG
CAATCAAGTGTCTGAAGAAGGACGTGGTGTTGATTGACGATGATGTAGAGTGTACCATGGTGGAGAAGCG
GGTGCTGGCGCTCGCCTGGGAGAGTCCCTTCCTCACCCACCTCATCTGTACCTTCCAGACCAAGGACCAC
CTGTTCTTCGTGATGGAGTTTCTCAATGGGGGTGACCTGATGTTCCACATTCAGGACAAAGGCCGCTTCG
AACTCTACCGGGCTACGTTTTATGCAGCTGAGATCATCTGCGGACTGCAGTTTCTACACAGCAAAGGCAT
TATTTACAGGGACCTCAAGCTGGACAATGTGATGCTAGACAGGGACGGCCACATCAAGATCGCTGACTTT
GGGATGTGCAAAGAGAATATATTTGGGGAGGGCCGGGCCAGCACATTCTGCGGCACTCCTGACTACATCG
CCCCTGAGATCCTGCAGGGCCTGAAGTACTCCTTCTCGGTGGACTGGTGGTCTTTCGGGGTCCTCCTGTA
CGAAATGCTCATCGGCCAGTCCCCCTTCCACGGCGACGATGAGGACGAGCTCTTCGAGTCCATCCGGGTG
GACACACCACACTATCCCCGTTGGATCACCAAGGAATCCAAGGACATCATGGAGAAGCTATTCGAGAGGG
ACCCTGACAAGAGGCTGGGAGTAACAGGAAACATCAGGATTCACCCCTTTTTCAAGACTATCAACTGGTC
CCTCCTGGAGAAGCGGAAGGTGGAGCCGCCCTTTAAGCCCAAAGTGAAATCCCCTTCAGACTACAGCAAC
TTTGACCCAGAGTTCCTGAATGAGAAACCTCAGCTTTCCTTCAGTGACAAGAACCTCATCGACTCTATGG
ACCAGGAAGCCTTCCATGGCTTCTCCTTTGTGAATCCCAAGTTTGAGCAATTCCTGGACATTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja2362_c04.zip

Restriction Sites: SgfI-MluI

ACCN: NM_011103

Insert Size: 2025 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
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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_011103.2, NP_035233.1
RefSeq Size:	2790 bp
RefSeq ORF:	2025 bp
Locus ID:	18753
UniProt ID:	P28867
Cytogenetics:	14 18.82 cM

Gene Summary:

Calcium-independent, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that plays contrasting roles in cell death and cell survival by functioning as a pro-apoptotic protein during DNA damage-induced apoptosis, but acting as an anti-apoptotic protein during cytokine receptor-initiated cell death, is involved in tumor suppression, is required for oxygen radical production by NADPH oxidase and acts as positive or negative regulator in platelet functional responses. Negatively regulates B cell proliferation and also has an important function in self-antigen induced B cell tolerance induction. Upon DNA damage, activates the promoter of the death-promoting transcription factor BCLAF1/Btf to trigger BCLAF1-mediated p53/TP53 gene transcription and apoptosis. In response to oxidative stress, interact with and activate CHUK/IKKA in the nucleus, causing the phosphorylation of p53/TP53. In the case of ER stress or DNA damage-induced apoptosis, can form a complex with the tyrosine-protein kinase ABL1 which trigger apoptosis independently of p53/TP53. In cytosol can trigger apoptosis by activating MAPK11 or MAPK14, inhibiting AKT1 and decreasing the level of X-linked inhibitor of apoptosis protein (XIAP), whereas in nucleus induces apoptosis via the activation of MAPK8 or MAPK9. Upon ionizing radiation treatment, is required for the activation of the apoptosis regulators BAX and BAK, which trigger the mitochondrial cell death pathway. Can phosphorylate MCL1 and target it for degradation which is sufficient to trigger for BAX activation and apoptosis. Is required for the control of cell cycle progression both at G1/S and G2/M phases. Mediates phorbol 12-myristate 13-acetate (PMA)-induced inhibition of cell cycle progression at G1/S phase by up-regulating the CDK inhibitor CDKN1A/p21 and inhibiting the cyclin CCNA2 promoter activity. In response to UV irradiation can phosphorylate CDK1, which is important for the G2/M DNA damage checkpoint activation. Can protect glioma cells from the apoptosis induced by TNFSF10/TRAIL, probably by inducing increased phosphorylation and subsequent activation of AKT1. Can also act as tumor suppressor upon mitogenic stimulation with PMA or TPA. In N-formyl-methionyl-leucyl-phenylalanine (fMLP)-treated cells, is required for NCF1 (p47-phox) phosphorylation and activation of NADPH oxidase activity, and regulates TNF-elicited superoxide anion production in neutrophils, by direct phosphorylation and activation of NCF1 or indirectly through MAPK1/3 (ERK1/2) signaling pathways. May also play a role in the regulation of NADPH oxidase activity in eosinophil after stimulation with IL5, leukotriene B4 or PMA. In collagen-induced platelet aggregation, acts a negative regulator of filopodia formation and actin polymerization by interacting with and negatively regulating VASP phosphorylation. Downstream of PAR1, PAR4 and CD36/GP4 receptors, regulates differentially platelet dense granule secretion; acts as a positive regulator in PAR-mediated granule secretion, whereas it negatively regulates CD36/GP4-mediated granule release. Phosphorylates MUC1 in the C-terminal and regulates the interaction between MUC1 and beta-catenin. The catalytic subunit phosphorylates 14-3-3 proteins (YWHAB, YWHAZ and YWHAH) in a sphingosine-dependent fashion. Phosphorylates ELAVL1 in response to angiotensin-2 treatment (By similarity). [UniProtKB/Swiss-Prot Function]
Transcript Variant: This variant (2) uses an alternate in-frame splice site in the central coding region, compared to variant 1. The encoded isoform (2) has the same N- and C-termini, but is shorter than isoform 1.