

Product datasheet for RC232574

PRKACB (NM_001242857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKACB (NM_001242857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRKACB
Synonyms:	CAFD2; PKA C-beta; PKACB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC232574 representing NM_001242857 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGGATTGTCACGCAAATCATCAGATGCATCTGCTTCTCTCAGAAATATCTGATTCCTTTGTGA
AAGAGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAATGGGAGAATCCAACCTCAGAATAATGCCGG
ACTTGAAGATTTGAAAGGAAAAAACCTTGGAACAGGTTCAATTTGGAAGAGTCATGTTGGTAAACAC
AAAGCCACTGAACAGTATTATGCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAACTGAAGCAAATAG
AGCATACTTTGAATGAGAAAAGAATATTACAGGCAGTGAATTTCTTTCTTCTGACTGGAGTATGC
TTTTAAGGATAATTCTAATTTATACATGGTTATGGAAATATGTCCCTGGGGTGAAATGTTTTCACATCTA
AGAAGAATTGGAAGGTTCAAGTGCACGCCCCATGCACGGTTCTATGCAGCTCAGATAGTGAACATTCGAGT
ACCTCCATTCACTAGACCTCATCTACAGAGATCTAAAACCTGAAAATCTCTTAATTGACCATCAAGGCTA
TATCCAGGTCACAGACTTTGGGTTTGCCAAAAGAGTTAAAGGCAGAACTTGGACATTATGTGGAACCTCA
GAGTATTTGGCTCCAGAAATAATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGCATTAGGAG
TGCTAATCTATGAAATGGCAGCTGGCTATCCCCATTCTTTCAGACCAACCAATTCAGATTTATGAAA
GATTGTTTCTGGAAGGTCGGATTCCCATCCCACCTTCAGTTCAGATCTCAAGGACCTTCTACGGAACCTG
CTGCAGGTGGATTTGACCAAGAGATTTGGAATCTAAGAATGGTGTGATGATATAAACTCACAACTG
GGTTTGCCACGACAGATTGGATTGCTATTTACCAGAGGAAGGTTGAAGCTCCATTACACAAAGTTTAG
AGGCTCTGGAGATACCAGCAACTTTGATGACTATGAAGAAGAAGATATCCGTGTCTCTATAACAGAAAA
TGTGCAAAAGAATTTGGTGAATTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC232574 representing NM_001242857
Red=Cloning site Green=Tags(s)

MGLSRKSSDASACSSSEISDSFVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKTLTGTGSFGRVMLVKH
 KATEQYYAMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLLEYAFKDNSNL YMVMEYVPGEMFSHL
 RRIGRFSEPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDVDFGFAKRVKGRWTWLCGTP
 EYLAPEIILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNL
 LQVDLTKRFGNLKNVSDIKTHKWFATTDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRVSITEK
 CAKEFGEF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_001242857

ORF Size: 1074 bp

OTI Disclaimer: 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_001242857.2](#)

RefSeq Size: 4317 bp

RefSeq ORF: 1077 bp

Locus ID: 5567

UniProt ID: [P22694](#)

Cytogenetics: 1p31.1

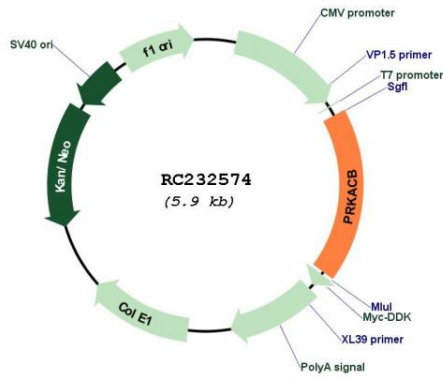
Protein Families: Druggable Genome, Protein Kinase

Protein Pathways: Apoptosis, Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Hedgehog signaling pathway, Insulin signaling pathway, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Prion diseases, Progesterone-mediated oocyte maturation, Taste transduction, Vascular smooth muscle contraction, Vibrio cholerae infection, Wnt signaling pathway

MW: 41.8 kDa

Gene Summary: The protein encoded by this gene is a member of the serine/threonine protein kinase family. The encoded protein is a catalytic subunit of cAMP (cyclic AMP)-dependent protein kinase, which mediates signalling through cAMP. cAMP signaling is important to a number of processes, including cell proliferation and differentiation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2014]

Product images:



Circular map for RC232574