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Product datasheet for RC202131

PRKACB (NM_207578) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKACB (NM_207578) 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:

>RC202131 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGAACGCGGCGACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAGAGTTTCTAGCCAAAGCCA
AAGAAGACTTTTTGAAAAAATGGGAGAATCCAACTCAGAATAATGCCGGACTTGAAGATTTTGAAAGGAA
AAAAACCCTTGGAACAGGTTCATTTGGAAGAGTCATGTTGGTAAAACACAAAGCCACTGAACAGTATTAT
GCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAAACTGAAGCAAATAGAGCATACTTTGAATGAGAAAA
GAATATTACAGGCAGTGAATTTTCCTTTCCTTGTTCGACTGGAGTATGCTTTTAAGGATAATTCTAATTT
ATACATGGTTATGGAATATGTCCCTGGGGGTGAAATGTTTTCACATCTAAGAAGAATTGGAAGGTTCAGT
GAGCCCCATGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTCGAGTACCTCCATTCACTAGACCTCA
TCTACAGAGATCTAAAACCTGAAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAGACTTTGG
GTTTGCCAAAAGAGTTAAAGGCAGAACTTGGACATTATGTGGAACTCCAGAGTATTTGGCTCCAGAAATA
ATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAG
CTGGCTATCCCCCATTCTTTGCAGACCAACCAATTCAGATTTATGAAAAGATTGTTTCTGGAAAGAACTT
T

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC202131 protein sequence
Red=Cloning site Green=Tags(s)

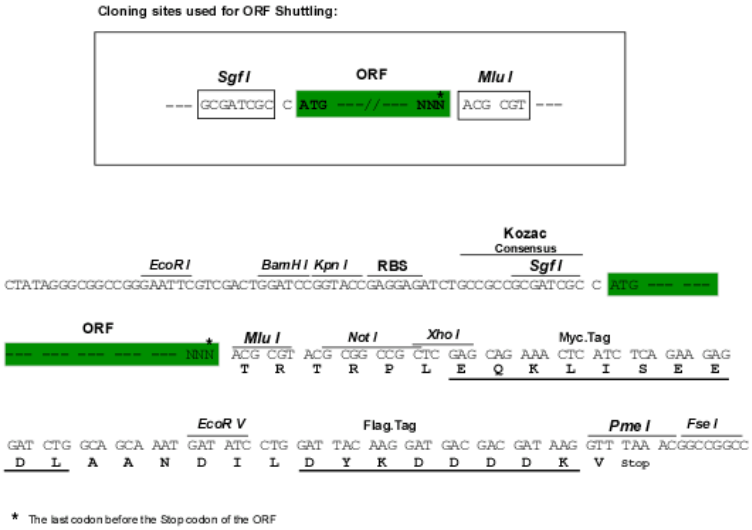
MGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKTLGTGSFGRVMLVKHKATEQYY
AMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMVMEYVPGGEMFSHLRRIGRFS
EPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDFGFAKRVKGRTWTLCGTPEYLAPEI
ILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKNF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6307_e05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_207578

ORF Size: 771 bp

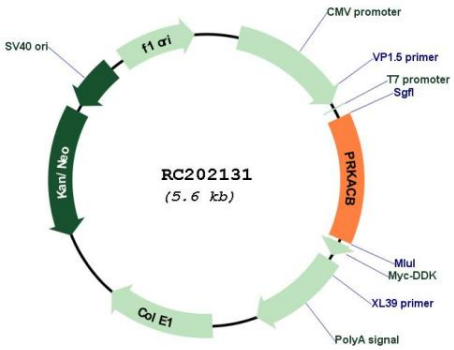
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

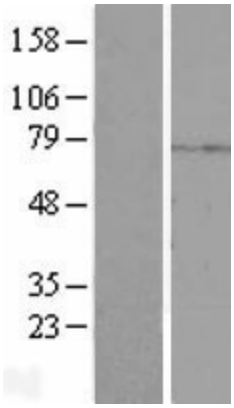
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_207578.3
RefSeq Size:	2119 bp
RefSeq ORF:	774 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:	29.7 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 though cAMP. cAMP signaling is important to a number of processes, including cell proliferaton and differentiation. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2014]

Product images:



Circular map for RC202131



Western blot validation of overexpression lysate (Cat# [LY403923]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202131 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).