

Product datasheet for RC207218

PRKACB (NM_002731) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRKACB (NM_002731) 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:	>RC207218 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGAACGCGGCGACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAGAGTTTCTAGCCAAAGCCA
AAGAAGACTTTTTGAAAAATGGGAGAATCCAACCTCAGAATAATGCCGGACTTGAAGATTTTGAAGGAA
AAAAACCTTGGAACAGGTTCAATTTGGAAGAGTCATGTTGGTAAAACACAAAGCCACTGAACAGTATTAT
GCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAACTGAAGCAAATAGAGCATACTTTGAATGAGAAAA
GAATATTACAGGCAGTGAATTTCTTTCTTGTTCGACTGGAGTATGCTTTAAGGATAATTCTAATTT
ATACATGGTTATGGAATATGTCCCTGGGGTGAATGTTTTCACATCTAAGAAGAATTGGAAGGTTCACT
GAGCCCATGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTCGAGTACCTCAATTCCTAGACATCA
TCTACAGAGATCTAAAACCTGAAAATCTCTAATTGACCATCAAGGCTATATCCAGGTCACAGACTTTGG
GTTTGCCAAAAGAGTTAAAGGCAGAACTTGACATTATGTGGAATCCAGAGTATTTGGCTCCAGAAATA
ATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAG
CTGGCTATCCCCATTCTTTGCAGACCAACCAATTCAGATTTATGAAAAGATTGTTTCTGGAAAGGTCGG
ATTCCCATCCAATTCAGTTCAGATCTCAAGGACCTTCTACGGAACCTGCTGCAGGTGGATTTGACCAAG
AGATTTGGAAATCTAAGAATGGTGTCAAGTATATAAACTCACAAGTGGTTTCCACGACAGAGTTGGA
TTGCTATTTACCAGAGGAAGGTTGAAGCTCCATTCATACCAAAGTTTAGAGGCTCTGGAGATACCGCAA
CTTTGATGACTATGAAGAAGAAGATATCCGTGTCTCTATAACAGAAAAATGTGCAAAGAATTTGGTGAA
TTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207218 protein sequence
Red=Cloning site Green=Tags(s)

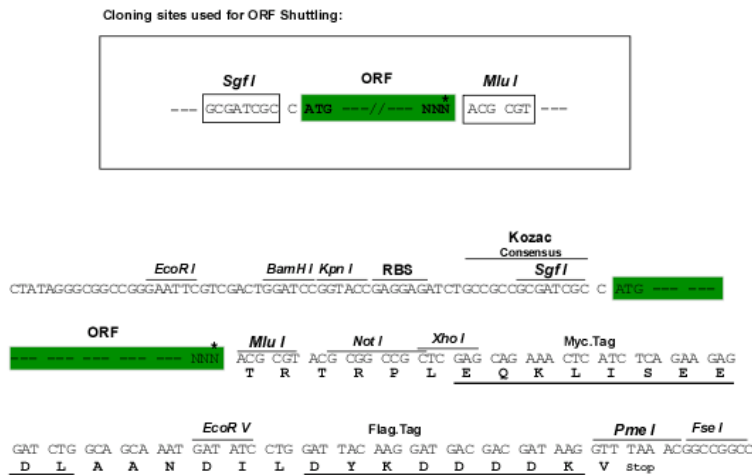
MGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKT LGTGSFGRVMLVKHKATEQYY
 AMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLLEYAFKDNSNLYMVMEYVPGGEMFSLHRRIGRFS
 EPHARFYAAQIVLTFEYLNSLDIIYRDLKPENLLIDHQGYIQVDFGFAKRVKGRWTLCGTPEYLAPEI
 ILSKGYNKAVDWWALGVL IYEMAAGYPPFFADQPIQIYEKIVSGKVRFP SNFSSDLKDLLRNLLQVDLTK
 RFGNLKNGVSDIKTHKWFATTDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRVSI TEKCAKEFGE
 F

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6232_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002731

ORF Size: 1053 bp

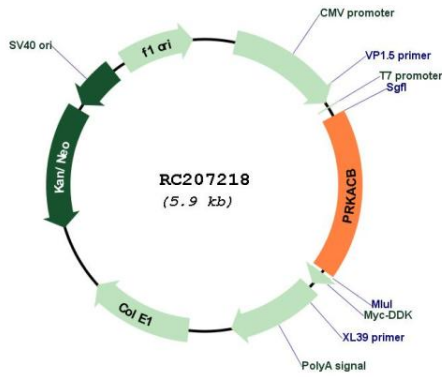
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

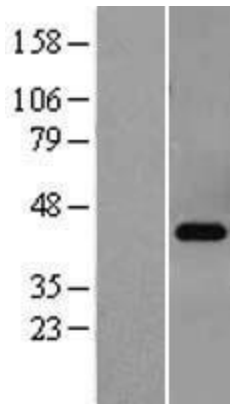
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_002731.3
RefSeq Size:	4616 bp
RefSeq ORF:	1056 bp
Locus ID:	5567
UniProt ID:	P22694
Cytogenetics:	1p31.1
Domains:	pkinase, S_TK_X, TyrKc, S_TKc
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:	40.6 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 RC207218



Western blot validation of overexpression lysate (Cat# [LY419141]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207218 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRKACB protein (Cat# [TP307218]). The protein was produced from HEK293T cells transfected with PRKACB cDNA clone (Cat# RC207218) using MegaTran 2.0 (Cat# [TT210002]).