

Product datasheet for **RR215333**

Prkacb (NM_001077645) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prkacb (NM_001077645) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prkacb
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR215333 representing NM_001077645 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC**GGCGC**
GCCC

ATGGGGAACACGGCGATCGCCAAGAAAGGCAGCGAAGTGGAGAGCGTGAAAGAATTCCTAGCCAAGGCCA
AAGAAGACTTTCTGAGGAAATGGGAGAACCCTCCCCGAGTAATGCTGGGCTTGAGGATTTTGAAGGAA
AAAAACCCTTGGACGGGTTCCCTCGGAAGAGTCATGCTGGTAAAGCATAAAGCCACTGAGCAGTACTAC
GCCATGAAGATCTTAGACAAGCAGAAGGTCGTTAAGCTAAAGCAAATAGAGCACACTCTGAATGAGAAGA
GAATCCTGCAGGCAGTGGAGTCCCGTTCCTTGTTCGGCTGGAGTATTCTTTTAAGGATAATTCTAATTT
ATACATGGTTATGGAATACGTTCTGGGGGGAATGTTTTACATCTAAGAAGAATTGGAAGGTTCAAGT
GAACCCCATGCTCGTTTCTATGCAGCTCAGATCGTGCTAACATTTGAGTACCTCCATTCCCTCGACCTCA
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GTTCCGCAAGAGAGTCAAGGGCAGGACTTGGACATTGTGTGGCACCCAGAGTACCTGGCCCCAGAGATC
ATCCTCAGCAAGGTTACAATAAGGCAGTGGACTGGTGGCATTGGGTGTACTGATCTACGAGATGGCTG
CTGGCTACCCCCGTTCTTTGCTGACCAGCCAATTCAGATTTATGAGAAGATTGTTCCGGAAAGGTTCCG
CTTCCCGTCGCACTTCAGTTCGATCTCAAGGACCTTCTGCGGAATCTGCTGCAGGTGGATCTGACAAAG
CGGTTTGGAAACCTGAAGAATGGCGTGAGTGACATCAAGACCCACAAGTGGTTTGTACGACCGACTGGA
TCGCGATTTACCAGAGAAAGGTTGAGGCTCATTACATACAAAATTCAGAGGCTCTGGCGATACCAGCAA
CTTCGATGACTATGAAGAAGAAGAAATCCGAGTGTCTATAACAGAAAAATGTGAAAGGAGTTTTGTGAA
TTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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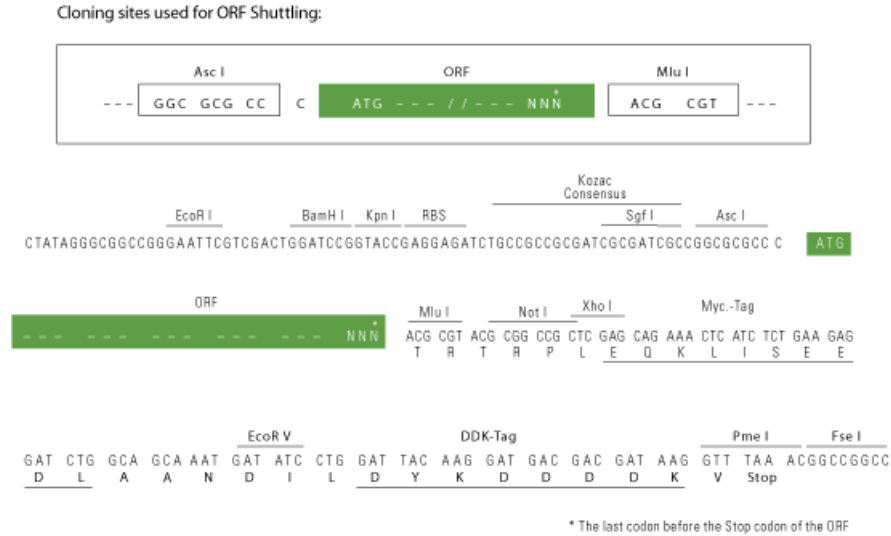
Protein Sequence: >RR215333 representing NM_001077645
Red=Cloning site Green=Tags(s)

MGNTAIAKKGSEVESVKEFLAKAKEDFLRKWENPPPSNAGLEDFERKKT LGTGSFGRVMLVKHKATEQYY
 AMKILDKQKVVKLKQIEHTLNEKRILQAVEFPFLVRLEYSFKDNSLYMVMYVPGGEMFSLRRIGRFS
 EPHARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDGFAKRVKGRWTWLCGTPPEYLPEI
 ILSKGYNKAVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFP SHFSSDLKDLLRNLQVDLTK
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 F

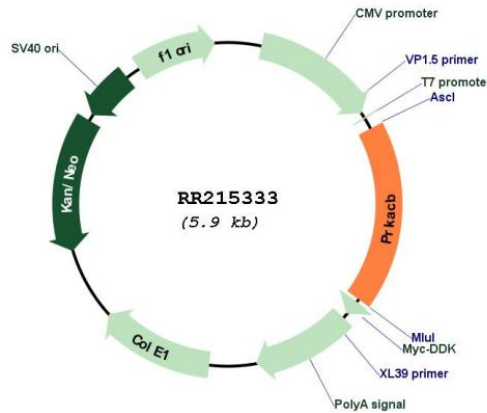
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: AscI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001077645

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_001077645.1 , NP_001071113.1
RefSeq Size:	1122 bp
RefSeq ORF:	1056 bp
Locus ID:	293508
UniProt ID:	P68182
Cytogenetics:	2q44
MW:	40.7 kDa
Gene Summary:	Mediates cAMP-dependent signaling triggered by receptor binding to GPCRs. PKA activation regulates diverse cellular processes such as cell proliferation, the cell cycle, differentiation and regulation of microtubule dynamics, chromatin condensation and decondensation, nuclear envelope disassembly and reassembly, as well as regulation of intracellular transport mechanisms and ion flux. Regulates the abundance of compartmentalized pools of its regulatory subunits through phosphorylation of PJA2 which binds and ubiquitinates these subunits, leading to their subsequent proteolysis. Phosphorylates GPKOW which regulates its ability to bind RNA.[UniProtKB/Swiss-Prot Function]