

## Product datasheet for RC228862

### PRKAR1B (NM\_001164762) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PRKAR1B (NM_001164762) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRKAR1B
Synonyms:	PRKAR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC228862 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCTCCCCGCCGCTGCCCTCGGAGGAGGACGAGAGCCTGAAGGGCTGTGAGCTGTACGTGCAGC  
TGCACGGGATCCAGCAGGTCTCAAAGACTGTATCGTCCACCTCTGCATCTCCAAGCCCCAACGCCCCAT  
GAAGTTCCTCCGGGAGCACTTCGAGAAGCTGGAGAAGGAAGAAAACAGGCAGATTTTGGCGCGGCAAAAG  
TCAAACACAGTCGGACTCCCATGATGAGGAGGTGTCGCCACCCCCCGAACCCCTGTGGTGAAGGCC  
GCCGCCGGCAGGAGGCGTGAGTGCCGAGGTGTACACCGAGGAGGACGCCGTGCTCTACGTCAGGAAGGT  
GATTCCTCAAGGACTACAAAACCATGACTGCGCTGGCCAAGGCCATCTCCAAGAAGCTGCTCTTCGCTCAC  
CTGGATGACAACGAGAGGAGTGACATATTCGATGCCATGTTCCCTGTCACTCACATCGCTGGGGAGACTG  
TTATACAGCAAGGGAATGAAGGAGACAACCTTCTATGTCGTTGATCAAGGGGAAGTGGATGTGTACGTGAA  
CGGAGAGTGGGTGACCAACATCAGCGAGGGAGGCAGCTTCGGGGAGCTGGCGCTCATCTACGGCACCCCC  
AGGGCTGCGACCGTGAAGCCAAGACGGACCTCAAGCTCTGGGGATCGACCGGGACAGTACCGGGCGCA  
TCCTTATGGGCAGCACGCTGAGGAAACGCAAGATGTACGAGGAGTTCCTCAGCAAGGTCTCCATCTAGA  
GTCCCTGGAGAAGTGGGAGCGTCTGACCGTGGCGGATGCGCTGGAGCCCGTCCAGTTTGAAGATGGAGAG  
AAAATCGTGGTCCAGGGAGAGCCTGGGGACGACTTTTACATCATCACGGAGGGCACCGCGTCCGTGCTGC  
AGCGCCGTCCTCCCAATGAGGAGTACGTGGAGGTGGGGCGCTGGGACCCCTGACTACTTCGGGGAGAT  
TGCACTGCTGCTGAACCGCCCCGGGCGGCCACTGTCGTGGCCCGGGGGCCCTCAAGTGTGTGAAGCTG  
GACCGGCCCGCTTCGAGCGTGTGCTGGGGCCCTGCTCTGAGATCCTCAAGAGGAACATTACGCTTACA  
ACAGCTTCATCTCCCTCACCGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC228862 protein sequence  
Red=Cloning site Green=Tags(s)

MASPPACPSEEDSLKGCELYVQLHGIQQVLKDCIVHLCISKPERPMKFLREHFKELEKEENRQILARQK  
 SNSQSDSHDEEVSPTPPNPVVKARRRRGGVSAEVYTEADAVSYVRKVIPKDYKTMTALAKAISKNVLAH  
 LDDNERSDIFDAMFPVTHIAGETVIQQNEGDNFYVVDQGEVDVYVNGEWTNISEGGSFGELALIYGTP  
 RAATVVKAKTDLKLWIDRDSYRRILMGSTLRKRKMYEEFLSKVSIKLEKWERLTVADALEPVQFEDGE  
 KIVVQGEPGDDFYIITEGTASVLRQRRSPNEEYVEVGRGLGPSDYFGEIALLLNRPRAATVVARGPLKCVKL  
 DRPRFERVLGPCSEILKRNIQRYNSFISLTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6006\\_a05.zip](https://cdn.origene.com/chromatograms/mk6006_a05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001164762

**ORF Size:** 1143 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\\_001164762.1](#), [NP\\_001158234.1](#)

**RefSeq Size:** 2494 bp

**RefSeq ORF:** 1146 bp

**Locus ID:** 5575

**UniProt ID:** [P31321](#)

**Cytogenetics:** 7p22.3

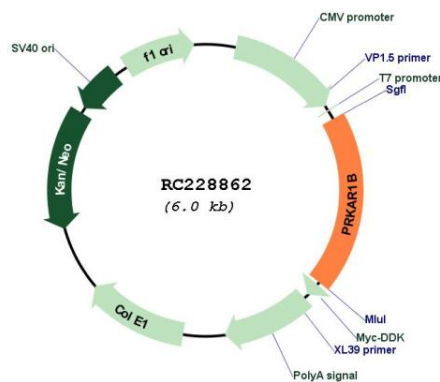
**Protein Families:** Druggable Genome

**Protein Pathways:** Apoptosis, Insulin signaling pathway

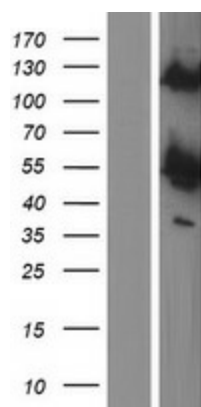
**MW:** 43.1 kDa

**Gene Summary:** The protein encoded by this gene is a regulatory subunit of cyclic AMP-dependent protein kinase A (PKA), which is involved in the signaling pathway of the second messenger cAMP. Two regulatory and two catalytic subunits form the PKA holoenzyme, disbands after cAMP binding. The holoenzyme is involved in many cellular events, including ion transport, metabolism, and transcription. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Aug 2015]

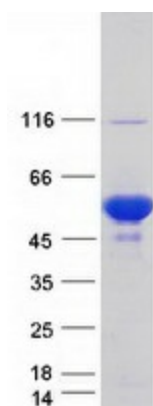
### Product images:



Circular map for RC228862



Western blot validation of overexpression lysate (Cat# [LY431891]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228863] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRKAR1B protein (Cat# [TP328862]). The protein was produced from HEK293T cells transfected with PRKAR1B cDNA clone (Cat# RC228862) using MegaTran 2.0 (Cat# [TT210002]).