

## Product datasheet for **RR210018**

### Prkaa1 (NM\_019142) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prkaa1 (NM_019142) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prkaa1
Synonyms:	AMPKalpha1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR210018 representing NM\_019142  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCGCAGACTCAGTTCCTGGAGAAAGATGGCGACGGCCGAGAAGCAGAAGCACGACGGCGGGTGAAGA  
 TCGGCCACTACATCCTGGGGGACACGCTGGGCGTCGGCACCTTCGGGAAAGTGAAGGTGGCAAGCACGA  
 GTTGACTGGACATAAAGTTGCTGTGAAGATACTCAACCGCAGAAGATTCGAAGCCTGGACGTGGTCCGG  
 AAAATCCGAGAGAGATCCAGAACCTGAAGCTTTTCAGGCACCCTCATATAATCAAAGTGTACCAGGTCA  
 TCAGTACACCGTCTGATATTTTCATGGTCATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTG  
 TAAAAATGGAAGTTGGACGAAAAGGAGAGTCCGACGTCTGTTCCAGCAGATCCTTTCTGGTGTGGACTAT  
 TGTACAGGCATATGGTGGTCCACAGAGATTTGAAACCTGAAACGTCTGCTTGTATGCACACATGAATG  
 CAAAGATAGCCGACTTCGGTCTTTCAAACATGATGTCAGATGGTGAATTTTAAAGAACGAGCTGTGGCTC  
 GCCAATTATGCTGCACCAGAAGTAATTTCAAGGAAGATTGTACGCAGGCCCTGAAGTAGACATCTGGAGC  
 AGCGGGGTCAATCTCTATGCTTTGCTGTGTGAACTCTCCCTTTTGTATGATGACCACGTGCCAAGCTTTT  
 TTAAGAAGATATGTGACGGGATATTTTATACCCCTCAGTATTTGAATCCCTCTGTAAAGCCTTTTGA  
 GCATATGCTGCAGGTAGATCCTATGAAGAGGGCCACAATAAAGATATCAGGGAACATGAATGGTTAAG  
 CAGGACCTTCAAATAATCTCTTTCTGAAGACCCGTCTTATAGTTCAACCATGATTGATGATGAAGCCT  
 TAAAAGAAGTGTGTGAGAAGTTCGAGTGTCTCAGAGGAGGAGTCCCTCAGCTGCCTGTACAACAGAAACCA  
 CCAGGACCCACTGGCAGTTGCCACCTACACCTCATAATAGACAACAGGAGAATAATGAACGAAGCCAAAGAT  
 TTCTACTTGGCAACAAGCCACCCGATTTCTTCTCGATGATCACCATTTAACTCGGCCTCACCCGTGAGA  
 GAGTACCATTCTGGTTGCCGAAACACCAAGGCCCGACACACCCTAGATGAATTAACCCACAGAAATC  
 CAAACACCAAGGCGTACGGAAGGCAAAGTGGCATTGGGGATTGGAAGTCAAAGCCGACCAATGACATC  
 ATGGCAGAAGTGTGTAGAGCAATCAAGCAGTTGGACTATGAATGGAAGGTTGAAACCCCTATTATTTGC  
 GTGTGCGAAGGAAGAACCCTGTGACAAGCACATTTTCAAATGAGTCTACAGCTATACCAAGTGGATAG  
 TAGGACTTACTTATTGGATTTCCGAAGTATTGATGATGAGATTACAGAAGCCAAATCAGGGACTGCTACT  
 CCACAGAGATCGGGATCCATCAGCAACTATCGATCTTGCCAAAGGAGCGACTCCGACGCCGAGGCTCAAG  
 GAAAGCCCTCAGAAGTCTCTTACCTCATCCGTGACCTCCCTCGACTCCTCTCTGTTGACGTAGCTCC  
 AAGACCAGGAAGTCACACGATAGAATTTTTTGAATGTGTGCAAACTAATTAATTAATTTCTTGACAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR210018 representing NM\_019142  
 Red=Cloning site Green=Tags(s)

MRRLLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVKGHELTGHKVAVKILNRQKIRSLDVG  
 KIRREIQNLKLFRRPHI IKLYQVISTPSDIFMVMEYVSGGELFDYICKNGRLDEKESRRLFQQILSGVDY  
 CHRHMVVHRDLKPEENVLLDAHNAKIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWS  
 SGVILYALLCGTLPFDDDHVPTLFKKICDGI FYTPQYLNPSVISLLKHMLQVDPMKRATIKDIREHEWFK  
 QDLPKYLPEDPSYSSTMIDDEALKEVCEKFECEEEVL SCLYNRNHQDPLAVAYHLIIDNRRIMNEAKD  
 FYLATSPDPSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQKSKHQGVKAKWHLGIRSQSRPNDI  
 MAEVCRAIKQLDYEWKVNPPYLRVRRKNPVTSTFSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTAT  
 PQRSGSISNYRSCQRSDSAEAQKQPSEVSLTSSVTSLDSSPVDVAPRPGSHTIEFFEMCANLIKILAQ

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_019142

**ORF Size:** 1677 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\\_019142.2](#), [NP\\_062015.2](#)
**RefSeq Size:** 4674 bp

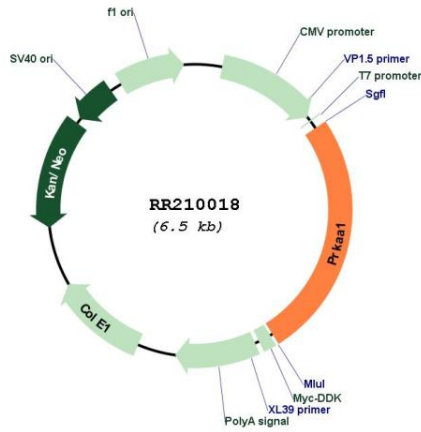
**RefSeq ORF:** 1680 bp

**Locus ID:** 65248

**UniProt ID:** [P54645](#)

**Cytogenetics:** 2q16  
**MW:** 64 kDa  
**Gene Summary:** catalytic subunit of AMP-activated protein kinase; phosphorylates hepatic acetyl-CoA carboxylase and adipose hormone-sensitive lipase [RGD, Feb 2006]

**Product images:**



Circular map for RR210018