

## Product datasheet for **RR208871**

### Prkaa2 (NM\_023991) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Prkaa2 (NM_023991) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prkaa2
Synonyms:	Ampk; Ampka2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR208871 representing NM\_023991  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGAGAAGCAGAAGCACGACGGCGTGTGAAGATCGGACACTACGTGCTGGGGACACCCCTGGGCG  
 TCGGCACCTTCGGCAAAGTGAAGATTGGAGAACATCAATTGACAGGCCATAAAGTGGCAGTTAAGATCTT  
 AAATAGACAGAAGATTCGCAGTTTATAGTGTGTTGGAAAAATAAAACGAGAAATCAAAATCTTAAACTC  
 TTTCTGTCATCCTCATATTATCAAACCTACCAAGTGATCAGCACTCCAACAGACTTTTTTATGGTAAATGG  
 AATATGTGTCTGGAGGTGAATTGTTGACTACATCTGTAACACGGGAGGGTTGAAGAGGTGGAAGCTCG  
 CCGGCTCTCCAGCAGATTCTGTCTGCCGTGGACTACTGTACAGGCACATGGTTGTCCACAGGGACCTG  
 AAGCCAGAGAACGTGTTGCTGGACGCCAGATGAATGCTAAGATAGCTGACTTCGGACTCTAATATGA  
 TGTCAGATGGTGAATTTCTACGAACTAGCTGTGGATCGCCAAATATGCAGCACCGGAGGTCTCAGG  
 AAGGCTGTATGCGGGTCTGAGGTTGATATCTGGAGCTGTGGTGTATCCTGTATGCCCTCTCTGTGGC  
 ACCCTCCCGTTCGACGATGAGCAGTGCCTACGCTCTTTAAGAAGATCCGAGGGGTGTGTTCTACATCC  
 CGGAGTATCTCAACCGTTCTATTGCCACTCTGCTGATGCACATGCTGCAGGTGGACCCCTTGAAGCGGAGC  
 AACTATCAAAGACATACGAGAGCATGAATGGTTTAAACAGGATTTGCCAGTTACCTCTTCTCTGAAGAC  
 CCCTCCTATGATGCTAACGTCATTGATGATGAGGCTGTGAAAGAAGTATGTGAAAAATTTGAGTGTACAG  
 AATCAGAAGTGATGAACAGTTTATACAGTGGTGACCCCAAGACCAGCTCGCAGTGGCTTATCATCTCAT  
 CATTGACAATCGGAGAATAATGAACCAAGCCAGTGAGTTCTACCTCGCTCCAGTCCCAACGGGTTCC  
 TTCATGGACGATATGGCCATGCACATCCCCCGGCTGAAACCACATCCTGAAAGGATGCCACCTCTCA  
 TAGCAGACAGCCCCAAAGCACGCTGTCCACTGGATGCACACTCAACACAATAAGCCCAAATCTTTAGCTGT  
 GAAAAAGCCAAGTGGCACCTTGGGATCCGAAGCCAGAGCAAACCATACGACATTATGGCGGAGGTGTAC  
 CGAGCTATGAAGCAGCTGGACTTTGAATGGAAGGTAGTGAATGCATACCATCTTCGAGTAAGAAGAAAA  
 ACCCAGTGACTGGCAATTACGTGAAATGAGCTTACAGCTTTACCTGGTTGACAATCGGAGCTATCTTCT  
 AGACTTTAAAAGCATCGATGATGAGGTGGTGGAGCAGAGGTCTGGTTCTTCAACACCTCAGCGCTCTGT  
 TCTGCTGCCGGCTCCACAGACCTCGGTCAAGTGTGATTCCAGCACAGCCGAGAACCATTCACTGTCTG  
 GCTCTCTACTGGTTCTTTGACTGGCAGCACTTTGTCTCCGCTTCCCCGCGCTGGGCAGTCATACCAT  
 GGATTTTTTTGAAATGTGCGCCAGTCTTATCACTGCTTTAGCCCGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR208871 representing NM\_023991  
 Red=Cloning site Green=Tags(s)

MAEKQKHDGRVKIGHYVLGDTLGVGTFGKVKIGEHLTGHKVAVKILNRQKIRSLDVGKIKREIQNLKL  
 FRHPHI IKLYQVISTPTDFMVMVEYVSGGELFDYICKHGRVEEVEARRLFQQILSAVDYCHRHMVVRDL  
 KPENVLLDAQMNAKIADFLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSGVILYALLCG  
 TLPFDDEHVPTLFFKIRGGVFYIPEYLNRSIATLLMHMLQVDPLKRATIKDIREHEWFKQDLPSYLFPE  
 PSYDANVIDDEAVKEVCEKFECTESEVMNSLYSGDPQDQLAVAYHLIDNRRIMNQASEFYLASSPPTGS  
 FMDDMAMHIPPGLKPHPERMPPLIADSPKARCPLDALNTKPKSLAVKKAKWHLGIRSQSKPYDIMAEVY  
 RAMKQLDFEWKVVNAYHLRVRKPNPVTGNVYKMSLQLYLVDNRSYLLDFKSIDDEVVEQRSSTPQRSC  
 SAAGLHRPRSSVDSSTAENHSLSGSLTGSLTGSTLSSASPRLGSHTMDFEFEMCASLITALAR

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

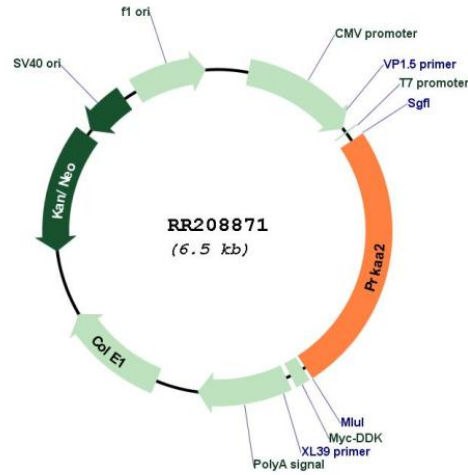
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_023991
<b>ORF Size:</b>	1656 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_023991.1</a></u> , <u><a href="#">NP_076481.1</a></u>
<b>RefSeq Size:</b>	2652 bp
<b>RefSeq ORF:</b>	1659 bp
<b>Locus ID:</b>	78975
<b>UniProt ID:</b>	<u><a href="#">Q09137</a></u>
<b>Cytogenetics:</b>	5q34
<b>MW:</b>	62.3 kDa
<b>Gene Summary:</b>	protein kinase that phosphorylates and inhibits acetyl-CoA carboxylase (ACC); rate-limiting enzyme in malonyl-CoA synthesis [RGD, Feb 2006]