

## Product datasheet for **RC209888**

### PRKAG2 (NM\_024429) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PRKAG2 (NM_024429) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRKAG2
Synonyms:	AAKG; AAKG2; CMH6; H91620p; WPWS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209888 representing NM_024429 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGC**C

ATGCTGGAGAAGCTGGAGTTCGAGGACGAAGCAGTAGAAGACTCAGAAAGTGGTGTTCACATGCGATTCA  
TGAGGTCACACAAGTGTATGACATCGTTCCAACAGTTCAAAGCTTGTTGTCTTTGATACTACATTACA  
AGTTAAAAAGGCCTTCTTTGCTTTGGTAGCCAACGGTGTCCGAGCAGCGCCACTGTGGGAGAGTAAAAA  
CAAAGTTTGTAGGAATGCTAACAATTACAGATTCATAAATACTACATAGATACTATAAATCACCTA  
TGGTACAGATTTATGAATTAGAGGAACATAAAATTGAAACATGGAGGGAGCTTTATTTACAAGAAACATT  
TAAGCCTTTAGTGAATATATCTCCAGATGCAAGCCTCTTCGATGCTGTATACTCCTTGATCAAAAATAAA  
ATCCACAGATTGCCCGTTATTGACCCTATCAGTGGGAATGCACCTTATATACTTACCCACAAAAGATCC  
TCAAGTTCCTCCAGCTTTTTATGTCTGATATGCCAAAGCCTGCCTTCATGAAGCAGAACCTGGATGAGCT  
TGGAATAGGAACGTACCACAACATTGCCTTCATACATCCAGACACTCCCATCATCAAAGCCTTGAACATA  
TTTGTGGAAGACGAATATCAGCTCTGCCTGTTGTGGATGAGTCAGGAAAAGTTGTAGATATTTATTCCA  
AATTTGATGTAATTAATCTTGCTGCTGAGAAAACATAACAACCTAGATATCACGGTGACCCAGGCCCT  
TCAGCACCGTTACAGTATTTTGAAGGTGTTGTGAAGTGAATAAGCTGGAAATACTGGAGACCATCGTG  
GACAGAATAGTAAGAGCTGAGGTCCATCGGCTGGTGGTAAATGAAGCAGATAGTATTGTGGGTATTA  
TTCCCTGTGGACATTCTGCAAGCCCTGATCCTCACACCAGCAGGTGCCAAACAAAAGGAGACAGAAAC  
GGAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC209888 representing NM\_024429  
Red=Cloning site Green=Tags(s)

MLEKLEFEDEAVEDESESGVYMRFRSHKCYDIVPTSSKLVVFD TTLQVKKAFFALVANGVRAAPLWESKK  
 QSFVGM LTTIDF INILHRYKSPMVQIYELEEHIETWRELYLQETFKPLVNI SPDASLFD AVYSLIKNK  
 IHRLPVIDPISGNALYILTHKRILKFLQLFMSDMPKPAFMKQNLDELGIGTYHNI AF IHPDTPIIKALNI  
 FVERRISALPVVDESGKVVDIYSKFDVINLAAEKTYNNLDITVTQALQHR SQYFEGVVCKNKLEIETIV  
 DRIVRAEVHRLV VVNEADSIVGIISLSDILQALILTPAGAKQKETETE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_024429

**ORF Size:** 984 bp

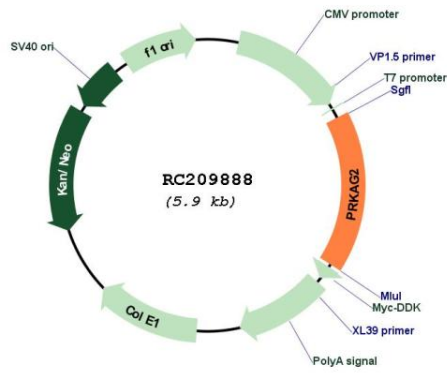
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone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

<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>	<a href="#">NM_024429.1</a> , <a href="#">NP_077747.1</a>
<b>RefSeq Size:</b>	2248 bp
<b>RefSeq ORF:</b>	987 bp
<b>Locus ID:</b>	51422
<b>UniProt ID:</b>	<a href="#">Q9UGJ0</a>
<b>Cytogenetics:</b>	7q36.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway
<b>MW:</b>	37.5 kDa
<b>Gene Summary:</b>	AMP-activated protein kinase (AMPK) is a heterotrimeric protein composed of a catalytic alpha subunit, a noncatalytic beta subunit, and a noncatalytic regulatory gamma subunit. Various forms of each of these subunits exist, encoded by different genes. AMPK is an important energy-sensing enzyme that monitors cellular energy status and functions by inactivating key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This gene is a member of the AMPK gamma subunit family. Mutations in this gene have been associated with Wolff-Parkinson-White syndrome, familial hypertrophic cardiomyopathy, and glycogen storage disease of the heart. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jan 2015]

Product images:



Circular map for RC209888