

## Product datasheet for **RC232528**

### AMPK gamma 1 (PRKAG1) (NM\_001206709) Human Tagged ORF Clone

#### Product data:

|                          |  |
|--------------------------|--|
| Product Type:            | Expression Plasmids  |
| Product Name:            | AMPK gamma 1 (PRKAG1) (NM_001206709) Human Tagged ORF Clone                    |
| Tag:                     | Myc-DDK  |
| Symbol:                  | PRKAG1   |
| Synonyms:                | AMPKG  |
| Vector:                  | pCMV6-Entry (PS100001)   |
| E. coli Selection:       | Kanamycin (25 ug/mL)   |
| Cell Selection:          | Neomycin   |
| ORF Nucleotide Sequence: | >RC232528 representing NM_001206709<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGAGACGGTCATTTCTTCAGATAGCTCCCCAGCTGTGAAAAATGAGCATCCTCAAGAGACCCAGAAT  
CCAACAATAGCGTGATACTTCCCTTCATGAAGTCTCATCGCTGCTATGACCTGATCCCACAAGCTCCAA  
ATTGGTTGTATTTGATACGTCCCTGCAGGTGAAGAAAGCTTTTTTGGCTTGGTGACTAACGGTGTACGA  
GCTGCCCTTTATGGGATAGTAAGAAGCAAAGTTTTGTGGTGCTGAGGGCTCTGTCTTGTCTCTAGGCA  
TGCTGACCATCACTGATTCATCAATATCCTGCACCGCTACTATAAATCAGCCTTGGTACAGATCTATGA  
GCTAGAAGAACAAGATAGAACTTGGAGAGAGGTGTATCTCCAGGACTCCTTTAAACCGCTTGTCTGC  
ATTTCTCCTAATGCCAGCTTGTGGTATGCTGTCTTTCATTAATTCGGAACAAGATCCACAGGCTGCCAG  
TTATTGACCCAGAATCAGGCAACTTTGTACATCCTCACCCACAAGCGCATTCTGAAGTTCTCAAATT  
GTTTATCACTGAGTTCCTCAAGCCAGAGTTCATGTCCAAGTCTCTGGAAGAGCTACAGATTGGCACCTAT  
GCCAATATTGCTATGGTTCGCACTACCACCCCGTCTATGTGGCTCTGGGATTTTTGTACAGCATCGAG  
TCTCAGCCCTGCCAGTGGTGGATGAGAAGGGCGTGTGGTGGACATCTACTCAAGTTTGTATGTTATCAA  
TCTGGCAGCAGAAAAGACCTACAACAACCTAGATGTATCTGTGACTAAAGCCTTGCAACATCGATCACAT  
TACTTTGAGGGTGTCTCAAGTGTACCTGCATGAGACTCTGGAGACCATCATCAACAGGCTAGTGGAAAG  
CAGAGGTTACCGACTTGTAGTGGTGGATGAAAATGATGTGGTCAAGGAATTGTATCACTGTCTGACAT  
CCTGCAGGCCCTGGTGTCTCACAGGTGGAGAGAAGAAGCCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC232528 representing NM\_001206709  
 Red=Cloning site Green=Tags(s)

METVISSDSSPAVENEHPQETPESNNSVYTSFMKSHRCYDLIPTSSKLVVFDTSLQVKKAFFALVTNGVR  
 AAPLWDSKKQSFVYLALSCPLGMLTITDFINILHRYYSALVQIYELEEHIETWREVYLQDSFKPLVC  
 ISPNASLFDVAVSSLIRNKIHRLPVIDPESGNTLYILTHKRILKFLKLFITEFPKPEFMSKSLEELQIGTY  
 ANIAMVRTTTPVYVALGIFVQHRVSALPVVDEKGRVVDIYSKFDVINLAAEKTYNNLDVSVTKALQHRSH  
 YFEGVLKCYLHETLETIINRLVEAEVHRLVVVDENDVVKGIVSLSDILQALVLTGGEKKP

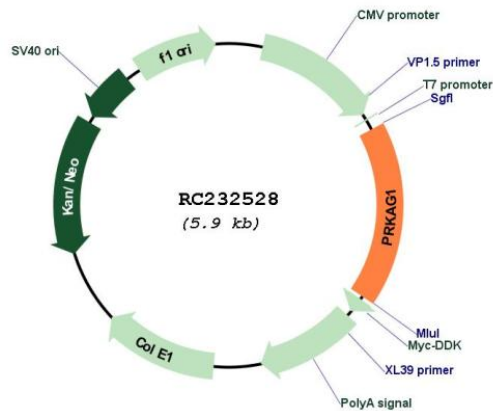
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001206709

**ORF Size:** 1020 bp

|                               |  |
|-------------------------------|--|
| <b>OTI Disclaimer:</b>        | 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>   |
| <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>                | <a href="#">NM_001206709.2</a>   |
| <b>RefSeq Size:</b>           | 1771 bp  |
| <b>RefSeq ORF:</b>            | 1023 bp  |
| <b>Locus ID:</b>              | 5571   |
| <b>UniProt ID:</b>            | <a href="#">P54619</a>   |
| <b>Cytogenetics:</b>          | 12q13.12   |
| <b>Protein Families:</b>      | Druggable Genome   |
| <b>Protein Pathways:</b>      | Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway  |
| <b>MW:</b>                    | 39 kDa   |
| <b>Gene Summary:</b>          | The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. This subunit is one of the gamma regulatory subunits of AMPK. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008] |