

## Product datasheet for RC224714L3V

## OriGene Technologies, Inc.

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## AMPK alpha 1 (PRKAA1) (NM\_206907) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

Product Type: Lentiviral Particles

**Product Name:** AMPK alpha 1 (PRKAA1) (NM\_206907) Human Tagged ORF Clone Lentiviral Particle

Symbol: AMPK alpha 1

Synonyms: AMPK; AMPKa1; AMPK alpha 1

**Mammalian Cell** 

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

Tag: Myc-DDK
ACCN: NM 206907

ORF Size: 1722 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC224714).

Sequence:

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.

**RefSeg:** NM 206907.3, NP 996790.3

RefSeq Size: 5130 bp
RefSeq ORF: 1725 bp
Locus ID: 5562
UniProt ID: Q13131

Cytogenetics: 5p13.1

**Protein Families:** Druggable Genome, Protein Kinase





## AMPK alpha 1 (PRKAA1) (NM\_206907) Human Tagged ORF Clone Lentiviral Particle – RC224714L3V

Protein Pathways: Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling

pathway, mTOR signaling pathway, Regulation of autophagy

MW: 65.3 kDa

**Gene Summary:** The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the

catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul

2008]