

Product datasheet for RC222787L2

OriGene Technologies, Inc.

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AMPK gamma 3 (PRKAG3) (NM_017431) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: AMPK gamma 3 (PRKAG3) (NM_017431) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: AMPK gamma 3

Synonyms: AMPKG3; SMGMQTL

Mammalian Cell None

Selection:

Vector: pLenti-C-mGFP (PS100071)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC222787).

Sequence:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF.

ACCN: NM_017431

ORF Size: 1467 bp

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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: <u>NM 017431.2</u>

RefSeq Size: 2299 bp
RefSeq ORF: 1470 bp
Locus ID: 53632
UniProt ID: Q9UGI9
Cytogenetics: 2q35

Domains: CBS

Protein Families: Druggable Genome

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

pathway

MW: 54.1 kDa

Gene Summary: The protein encoded by this gene is a regulatory subunit of the AMP-activated protein kinase

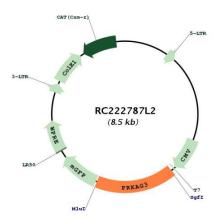
(AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus

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. It is dominantly expressed in skeletal muscle. Studies of the pig counterpart suggest that this subunit may play a key role in the regulation of energy

metabolism in skeletal muscle. [provided by RefSeq, Jul 2008]



Product images:



Circular map for RC222787L2