

Product datasheet for **RC224714**

AMPK alpha 1 (PRKAA1) (NM_206907) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AMPK alpha 1 (PRKAA1) (NM_206907) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AMPK alpha 1
Synonyms:	AMPK; AMPKa1; AMPK alpha 1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224714 representing NM_206907
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGCAGACTCAGTTCCTGGAGAAAGATGGCGACAGCCGAGAAGCAGAAACACGACGGCGGGTGAAGA
 TCGGCCACTACATTCTGGGTGACACGCTGGGGTTCGGCACCTTCGGCAAAGTGAAGGTTGGCAAACATGA
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 TCAGTACACCATCTGATATTTTCATGGTATGGAATATGTCTCAGGAGGAGAGCTATTTGATTATATCTG
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 GAAAGTCGGCGTCTGTTCCAACAGATCCTTTCTGGTGTGGATTATTGTCACAGGCATATGGTGGTCCATA
 GAGATTTGAAACCTGAAAATGTCCTGCTTGTATGCACACATGAATGCAAAGATAGCTGATTTTGGTCTTTC
 AAACATGATGTGAGATGGTGAATTTTTAAGAACAAGTTGTGGCTCACCAACTATGCTGCACCAGAAGTA
 ATTTTCAGGAAGATTGTATGCAGGCCAGAGGTAGATATATGGAGCAGTGGGGTATTCTCTATGCTTTAT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>RC224714 representing NM_206907
 Red=Cloning site Green=Tags(s)

MRRLLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGKHEL TGHKVAVKILNRQKIRSLDVVG
 KIRREIQNLKLFRRPHI IKLYQVISTPSDIFMVM EYVSGGELFDYICKNGRKS DVPGVVKTGSTKELDEK
 ESRRLFQQILSGVDYCHRHMVVHRDLKPEVLLDAHMNAKIADFGLSNMMSDGEFLRTSCGSPNYAAPEV
 ISGRLYAGPEVDIWSSGVILYALLCGTLPFDDDHVPTLFKKICDGI FYTPQYLNPSV I SLLK HMLQV DPM
 KRATIKDIREHEWFKQDLPKYLFPEDPSYSSTMIDDEALKEVCEKFECSEEEVL SCLYNRNHQDPLAVAY
 HLIIDNRRIMNEAKDFYLATSPDPSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQKSKHQGVRKA
 KWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVNPYYLRVRRKNPVTSTYSKMSLQLYQVDSRTYLLDFR
 SIDDEITEAKSGTATPQRSQSVSNYRSCQRSDSDAEAQGKSSEVSLTSSVTSLDSSPVDLTPRPGSHITIE
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Chromatograms:

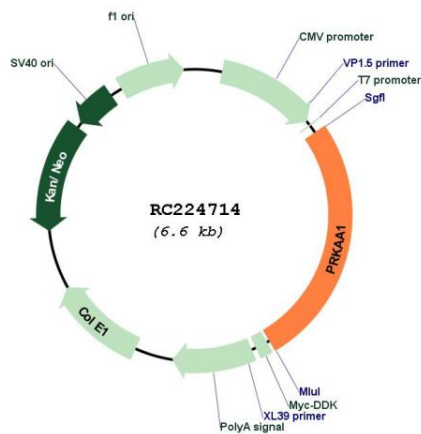
https://cdn.origene.com/chromatograms/mk6742_f04.zip

Restriction Sites:

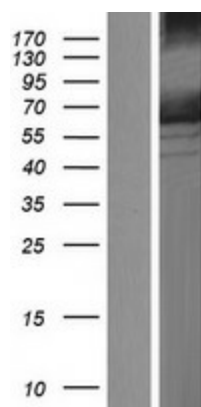
Sgfl-Mlul

RefSeq: [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
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]

Product images:



Circular map for RC224714



Western blot validation of overexpression lysate (Cat# [LY404162]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224714 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).