

Recombinant Full Length Human PRKAA1 Protein, C-Flag-tagged

Cat. No. PRKAA1-1007HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human PRKAA1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	63.8 kDa
AA Sequence	MRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGKHELTGHKVAVK ILNRQKIRSLDVVG KIRREIQNLKLFRRHPHIKLYQVISTPSDIFMVMEYVSGGELFDYI CKNGRLDEKESRRLFQQILSGVDY CHRHMVVHRDLKPENVLLDAHMNAKIADFGLS NMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWS SGVILYALLCGTLPFDDD

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HVPTLFKKICDGIFYTPQYLNPSVISLLKHMLQVDPMKRATIKDIREHEWFK QDLPKY
 LFPEDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHLIIDNRRI
 MNEAKD FYLATSPDPSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQKSKHQ
 GVRKAKWHLGIRSQSRPNDI MAEVCRAIKQLDYEWKVVNPYYLRVRRKNPVTSTYS
 KMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTAT PQRSGSVSNYRSCQRSDSDAEA
 QGKSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQTRTRPLEQKLIS
 EEDLAANDILDYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Protein Kinase
Protein Pathways	Adipocytokine signaling pathway, Hypertrophic cardiomyopathy (HCM), Insulin signaling pathway, mTOR signaling pathway, Regulation of autophagy
Full Length	Full L.

GENE INFORMATION

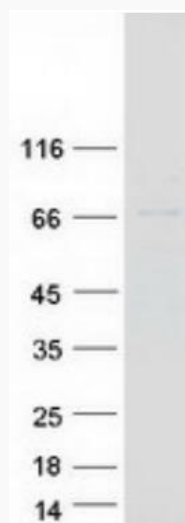
Gene Name [PRKAA1 protein kinase AMP-activated catalytic subunit alpha 1 \[Homo sapiens \(human\) \]](#)

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Official Symbol	PRKAA1
Synonyms	AMPK; AMPKa1; AMPK alpha 1
Gene ID	5562
mRNA Refseq	NM_006251.6
Protein Refseq	NP_006242.5
MIM	602739
UniProt ID	Q13131



Coomassie blue staining of purified PRKAA1 protein.

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