

Recombinant Human PRKAA1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. PRKAA1-4741H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PRKAA1 MS Standard C13 and N15-labeled recombinant protein (NP_006242) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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.
Molecular Mass	63.8 kDa
AA Sequence	MRRLLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGKHELTGHKVAVK ILNRQKIRSLDVVGKIRREIQNLKLFRRPHIHKLYQVISTPSDIFMVM EYVSGGELFDYIC KNGRLDEKESRRLFQQILSGVDYCHRHMVVHRDLKPENVLDDAHMNAKIADFGLSN MMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSSGVILYALLCGTLPFDDDHV PTLFKKICDGIFYTPQYLNPSVISLLKHMLQVDPMKRATIKDIREHEWFKQDLPKYLFP

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EDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHLIIDNRRIMNE
AKDFYLATSPDPSFLDDHHLTRPHERVPFLVAETPRARHTLDELNPQKSKHQGVR
KAKWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVPYLRVRRKNPVTSTYSKMS
LQLYQVDSRTYLLDFRSIDDEITEAKSGTATPQRSGSVSNYRSCQRSDSDAEAQGK
SSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQTRTRPLEQKLISEED
LAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

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

Official Symbol PRKAA1

Synonyms PRKAA1; protein kinase, AMP-activated, alpha 1 catalytic subunit; 5-AMP-activated protein kinase catalytic subunit alpha-1; AMPK; alpha; 1; AMPKa1; AMPK alpha 1; AMPK subunit alpha-1; tau-protein kinase PRKAA1; AMP -activate kinase alpha 1 subunit; AMP-activated protein kinase, catalytic, alpha-1; 5-AMP-activated protein kinase, catalytic alpha-1 chain; MGC33776; MGC57364;

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Gene ID	5562
mRNA Refseq	NM_006251
Protein Refseq	NP_006242
MIM	602739
UniProt ID	Q13131
SDS-PAGE	