

Recombinant Human PRKAA1 Protein (K45R), His-tagged

Cat. No. PRKAA1-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant AMPKalpha Protein (K45R), with N terminal His tag was expressed in E.coli.
Species	Human
Source	E.coli
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	The protein has a calculated MW of 65 kDa.
AA Sequence	MHHHHHHMRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGRHEL TGHKVAVKILNRQKIRSLDVVGKIRREIQNLKLFRHPHIKLYQVISTPSDIFMVMEYVS GGELFDYICKNGRLDEKESRRLFQQILSGVDYCHRHMVVHRDLKPENVLLDAHMA KIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSSGVILYALLCG TLPFDDDHVPTLFKKICDGFYTPQYLNPVSISLLKHMLQVDPMKRATIKDIREHEWFK QDLPKYLPEDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHL

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IIDNRRIMNEAKDFYLATSPPDSDLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQ
KSKHQGVVRKAKWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVNPYYLRVRRKNPV
TSTYSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTATPQRSGSVSNYRSCQRS
DSEAQGKSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQ

Purity >85% by SDS-PAGE

Storage Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Concentration 0.136 mg/mL

Storage Buffer PBS pH7.4, 0.1% SKL

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 catalytic subunit alpha 1; AMPK; AMPKα1; AMPK alpha 1; 5'-AMP-activated protein kinase catalytic subunit alpha-1; 5'-AMP-activated protein kinase, catalytic alpha-1 chain; ACACA kinase; AMP -activate kinase alpha 1 subunit; AMP-activated protein kinase, catalytic, alpha-1; AMPK subunit alpha-1; AMPK, alpha, 1; HMGCR kinase; acetyl-CoA carboxylase kinase; hydroxymethylglutaryl-CoA reductase kinase; protein kinase, AMP-activated, alpha 1 catalytic subunit; tau-protein kinase PRKAA1; EC 2.7.11.1; EC 2.7.11.26; EC 2.7.11.27; EC 2.7.11.31

Gene ID 5562

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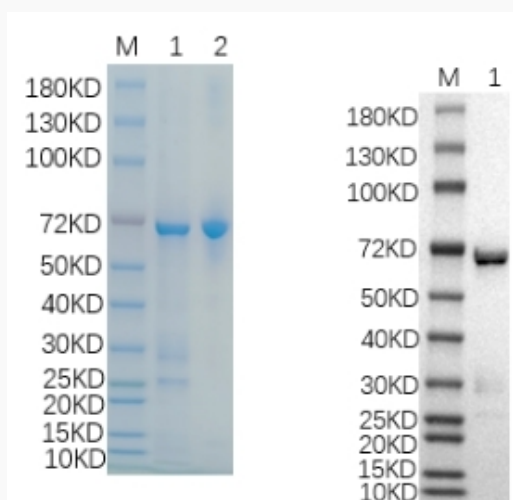
mRNA Refseq NM_006251

Protein Refseq NP_006242

MIM 602739

UniProt ID Q13131

SDS-PAGE



Reducing 12% SDS-PAGE and WB analysis profile of purified AMPKa

1. AMPKa

2. BSA

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