

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	MHHHHHMRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGRHEL TGHKVAVKILNRQKIRSLDVVGKIRREIQNLKLFRRPHIHKLYQVISTPSDIFMMEYVS GGELFDYICKNGRLDEKESRRLFQQILSGVDYCHRHMVVHRDLKPENVLLDAHMA KIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSSGVILYALLCG TLPFDDDHVPTLFKKICDGFYTPQYLNPVISLLKHMLQVDPMKRATIKDIREHEWFK QDLPKYLPEDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHL

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

IIDNRRIMNEAKDFYLATSPPDSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQ
 KSKHQGVVRKAKWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVNPYYLRVRRKNPV
 TSTYSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTATPQRSGSVSNYRSCQRSDS
 DAEAQGKSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQ

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; AMPKa1; 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](#)

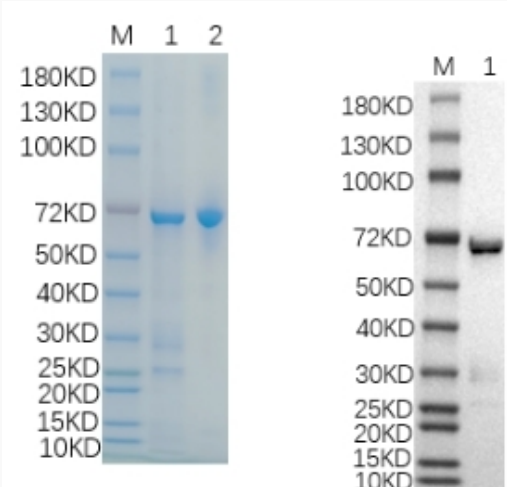
 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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