

Recombinant human 5'-AMP-activated protein kinase catalytic subunit alpha-1 K45R mutant protein, His-tagged

Cat. No. PRKAA1 K45R-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human 5'-AMP-activated protein kinase catalytic subunit alpha-1 K45R mutant protein with N-terminal His6 fusion tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	566
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	Buffered aqueous solution
Molecular Mass	65 kDa
AA Sequence	MHHHHHHMRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGRHEL TGHKVAVKILNRQKIRSLDVVGKIRREIQNLKLFRRHPHIKLYQVISTPSDIFMVMEYVS

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GGELFDYICKNGRLDEKESRRLFQQILSGVDYCHRMVVHRDLKPENVLLDAHMNA
 KIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSSGVILYALLCG
 TLPFDDDHVPTLFKKICDGIFYTPQYLNPSVISLLKHMLQVDPMKRATIKDIREHEWFK
 QDLPKYLFPEDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHL
 IIDNRRIMNEAKDFYLATSPDPSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQ
 KSKHQGVRKAKWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVNPYYLRVRRKNPV
 TSTYSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTATPQRSGSVSNYRSCQRS
 DAEAQGKSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQ

Purity 85% by SDS-PAGE

Applications ELISA

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

Concentration 0.136 mg/ml

Storage Buffer Solution in PBS, pH7.4, 0.1% Sodium Lauroyl Sarcosinate

GENE INFORMATION

Gene Name PRKAA1

Official Symbol PRKAA1

Synonyms Acetyl-CoA carboxylase kinase (ACACA kinase);
 Hydroxymethylglutaryl-CoA reductase kinase (HMGCR kinase);
 Tau-protein kinase PRKAA1.

Gene ID 5562

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mRNA Refseq [NM_006251.6](#)

Protein Refseq [NP_006242.5](#)

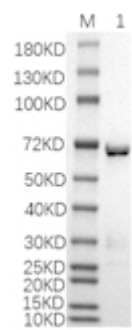
MIM [602739](#)

UniProt ID [Q13131](#)

SDS-PAGE



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