

Recombinant Full Length Human PRKAA1 Protein, K45R, His tagged

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

SPECIFICATION

Product Overview	Recombinant Full Length Human PRKAA1 Protein (K45R) with His tag was expressed in E.coli.
Species	Human
Source	E. coli
ProteinLength	1-559 aa
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	Sterile PBS, pH7.4, 0.1% SKL
Molecular Mass	65 kDa
AASequence	MHHHHHHMRRLSSWRKMATAEKQKHDGRVKIGHYILGDTLGVGTFGKVKVGRHEL TGHKVAVKILNRQKIRSLDVVGKIRREIQNLKLFRRHPHIKLYQVISTPSDIFMVMEYVS

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GGELFDYICKNGRLDEKESRRLFQQILSGVDYCHRHMVVHRDLKPENVLDDAHMNA
 KIADFGLSNMMSDGEFLRTSCGSPNYAAPEVISGRLYAGPEVDIWSSGVILYALLCG
 TLPFDDDHVPTLFKKICDGIFYTPQYLNPVISLLKHMLQVDPMKRATIKDIREHEWFK
 QDLPKYLFPEDPSYSSTMIDDEALKEVCEKFECSEEEVLSCLYNRNHQDPLAVAYHL
 IIDNRRIMNEAKDFYLATSPDPSFLDDHHLTRPHPERVPFLVAETPRARHTLDELNPQ
 KSKHQGVRKAKWHLGIRSQSRPNDIMAEVCRAIKQLDYEWKVVPYLRVRRKNPV
 TSTYSKMSLQLYQVDSRTYLLDFRSIDDEITEAKSGTATPQRSGSVSNYRSCQRSDS
 DAEAQGKSSEVSLTSSVTSLDSSPVDLTPRPGSHTIEFFEMCANLIKILAQ

Endotoxin < 1 EU/μg by LAL

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 0.6 mg/mL by BCA

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

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

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

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kinase, catalytic alpha-1 chain; MGC33776; MGC57364

Gene ID [5562](#)

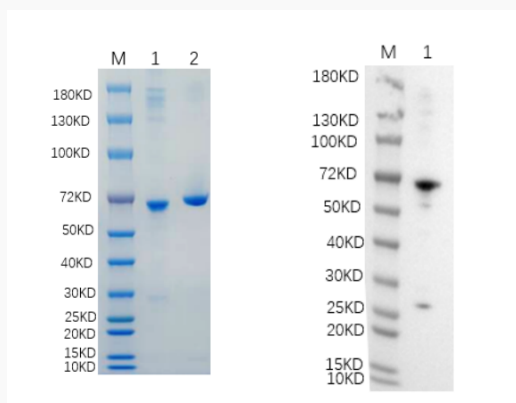
mRNA Refseq [NM_006251](#)

Protein Refseq [NP_006242](#)

MIM [602739](#)

UniProt ID [Q13131](#)

SDS-PAGE and WB



Reducing 4%-20% SDS-PAGE (CBB stained) and WB (Anti-His Mouse Monoclonal antibody) analysis profiles of purified PRKAA1. 1. PRKAA1: 1 µg 2. BSA: 1 µg

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