

Recombinant Human AMPK (combination of A2/B1/G1 subunits), His-tagged

Cat. No. PRKAA2-105H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human AMPK (combination of A2/B1/G1 subunits) was expressed by baculovirus in Sf9 insect cells using a C-terminal His tag.
Species	Human
Source	Sf9 Cells
Description	AMPK (A2/B1/G1) plays a key role in insulin signaling pathway and is a major therapeutic target for the treatment of diabetes. AMPK is viewed as a fuel sensor for glucose and lipid metabolism by modulating the activity of the autonomous nervous system in vivo. Short-term overexpression of a constitutively active form of AMPK in the liver leads to mild hypoglycemia and fatty liver due to increased fatty acid utilization.
Form	Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.
Molecular Mass	~69 kDa (A2), ~38kDa (B1), and ~40kDa (G1)
Purity	>90% by densitometry
Applications	Kinase Assay
Storage	Store product at -70 centigrade. For optimal storage, aliquot target into smaller

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quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Concentration 0.1 µg/µl

GENE INFORMATION

Gene Name PRKAA2 protein kinase, AMP-activated, alpha 2 catalytic subunit [Homo sapiens]

Official Symbol PRKAA2

Synonyms PRKAA2; protein kinase, AMP-activated, alpha 2 catalytic subunit; PRKAA; 5-AMP-activated protein kinase catalytic subunit alpha-2; AMPK; AMPKa2; AMPK-alpha-2 chain; AMPK subunit alpha-2; 5-AMP-activated protein kinase, catalytic alpha-2 chain; AMPK2;

Gene ID 5563

mRNA Refseq NM_006252

Protein Refseq NP_006243

MIM 600497

UniProt ID P54646

Chromosome Location 1p31

Pathway AMPK inhibits chREBP transcriptional activation activity, organism-specific biosystem; AMPK signaling, organism-specific biosystem; Adipocytokine signaling pathway,

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organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Energy Metabolism, organism-specific biosystem; Energy dependent regulation of mTOR by LKB1-AMPK, organism-specific biosystem; Fatty acid, triacylglycerol, and ketone body metabolism, organism-specific biosystem;

Function

AMP-activated protein kinase activity; AMP-activated protein kinase activity; ATP binding; chromatin binding; histone serine kinase activity; metal ion binding; nucleotide binding; protein binding; protein binding, bridging; protein kinase activity; protein serine/threonine kinase activity;

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