

Recombinant Human PRKAA2 cell lysate

Cat. No. PRKAA2-1413HCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Description	The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia.
Size	100 ul
Storage Buffer	1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)
Applications	Western Blot;

GENE INFORMATION

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