

Recombinant Human PRKAA1 cell lysate

Cat. No. PRKAA1-1412HCL Lot. No. (See product label)

SPECIFICATION

Species	Human
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.
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	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

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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 kinase, catalytic alpha-1 chain; MGC33776; MGC57364;

Gene ID [5562](#)

mRNA Refseq [NM_006251](#)

Protein Refseq [NP_006242](#)

MIM [602739](#)

UniProt ID [Q13131](#)

Chromosome Location 5p12

Pathway

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; Hypertrophic cardiomyopathy (HCM), organism-specific biosystem; Hypertrophic cardiomyopathy (HCM), conserved biosystem;

Function

AMP-activated protein kinase activity; AMP-activated protein kinase activity; ATP binding; cAMP-dependent protein kinase activity; chromatin binding; histone serine kinase activity; metal ion binding; nucleotide binding; protein binding; protein kinase activity; protein serine/threonine kinase activity; tau-protein kinase activity;

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