Recombinant Human PRKAA1, GST-His

Cat. No. PRKAA1-740H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human AMPK-alpha1 Amino acids M1-Q550, N-terminally fused to GST-HIS6-Thrombin cleavage site, was expressed in*Sf9*cells. MW = 92,188 Da.
Species	Human
Source	Sf9 Cells
ProteinLength	1-550 a.a.
Description	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.
Purification	One-step affinity purification using GSH-agarose.
Product Identity	AMPK-alpha1 was confirmed as human AMPK-alpha1 by mass spectroscopy LC-ESI-MS/MS.
Storage Buffer	50 mM Tris-HCl, pH 8.0; 100 mM NaCl, 5 mM DTT, 4 mM reduced glutathione, 20% glycerol.
Concentration	0.144 μg/μl (Bradford method using BSA [Sigma, cat# A-7638,Lot 79H7641] as

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	standard protein).
Specific Activity	37 pmol/μg×min.
Storage	-80°C. Avoid repeated freeze-thaw cycles!

GENE INFORMATION

Gene Name	PRKAA1 protein kinase, AMP-activated, alpha 1 catalytic subunit [Homo sapiens]
Synonyms	PRKAA1; protein kinase, AMP-activated, alpha 1 catalytic subunit; AMPK; AMPKa1; MGC33776; MGC57364; AMPK alpha 1; AMP -activate kinase alpha 1 subunit; AMP-activated protein kinase, catalytic, alpha-1; 5''-AMP-activated protein kinase, catalytic alpha-1 chain; AMPK1EC; 2.7.11.1; AMPK alpha-1 chain, protein kinase
Gene ID	5562
mRNA Refseq	NM_006251
Protein Refseq	NP_006242
MIM	602739
UniProt ID	Q13131
Chromosome Location	5p12
Pathway	Adipocytokine signaling pathway; Hypertrophic cardiomyopathy (HCM); Insulin signaling pathway; Regulation of autophagy; mTOR signaling pathway

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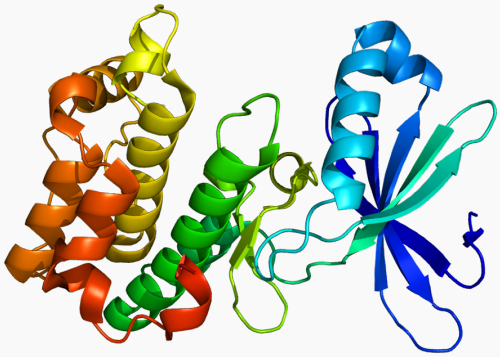
Function	ATP binding; cAMP-dependent protein kinase activity; magnesium ion binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; transferase activity
PDB rendering based on 2h6d.	

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