Recombinant Human AMPK (A1/B1/G1), His-tagged, Active

Cat. No. AMPK(A1/B1/G1)-241H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human AMPK (combination of A1/B1/G1 subunits) was expressed by baculovirus in*Sf9 insect cells*using a C-terminal His tags. MW = 68kDa (A1), 38kDa (B1), 40kDa (G1).
Species	Human
Source	Sf9 Cells
Description	AMPK is a heterotrimer protein kinase consisting of an α catalytic subunit, and non-catalytic β and γ subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated and phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating biosynthesis of fatty acid and cholesterol.
Sequence	Full-length.
Applications	Kinase Assay, Western Blot.
Storage And Stability	Store product at –70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

GENE INFORMATION

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Gene Name	PRKAA1 protein kinase, AMP-activated, alpha 1 catalytic subunit [Homo sapiens],PRKAB1 protein kinase, AMP-activated, beta 1 non-catalytic subunit [Homo sapiens],PRKAG1 protein kinase, AMP-activated, gamma 1 non-catalytic subunit [Homo sapiens]
Synonyms	protein kinase, AMP-activated, alpha 1 catalytic subunit; AMPK; AMPKa1; MGC33776; MGC57364; PRKAA1; 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, AMP-activated, beta 1 non-catalytic subunit; AMPK; HAMPKb; MGC17785; PRKAB1; AMPK beta 1; AMPK beta -1 chain; AMP-activated protein kinase beta subunit; 5"-AMP-activated protein kinase beta-1 subunit; protein kinase, AMP-activated, noncatalytic, beta-1; AMPKb; protein kinase, AMP-activated, beta 1 non-catalytic subunit, protein kinase, AMP-activated, gamma 1 non-catalytic subunit; AMPKG; MGC8666; PRKAG1; AMPK gamma-1 chain; 5"-AMP-activated protein kinase, gamma-1 subunit; AMPKg; protein kinase, AMP-activated, gamma 1 non-catalytic subunit
Gene ID	5562,5564,5571
mRNA Refseq	NM_006251,NM_006253,NM_002733
Protein Refseq	NP_006242,NP_006244,NP_002724
MIM	602739,602740,602742
UniProt ID	Q13131, Q9Y478, P54619
Chromosome Location	5p12, 12q24.1, 12q12-q14
Pathway	Adipocytokine signaling pathway; Hypertrophic cardiomyopathy (HCM); Insulin

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	signaling pathway; Regulation of autophagy; mTOR signaling pathway, Adipocytokine signaling pathway; Hypertrophic cardiomyopathy (HCM); Insulin signaling pathway, Adipocytokine signaling pathway; Hypertrophic cardiomyopathy (HCM); Insulin signaling pathway
Function	ATP binding; cAMP-dependent protein kinase activity; magnesium ion binding; nucleotide binding; protein binding; protein serine/threonine kinase activity; transferase activity, protein binding; protein kinase binding, AMP binding; AMP-activated protein kinase activity; cAMP-dependent protein kinase activity; cAMP-dependent protein kinase regulator activity; protein binding; protein kinase binding

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