

Recombinant Human AMPK (A1/B2/G1), His-tagged, Active

Cat. No. AMPK(A1/B2/G1)-244H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human AMPK (combination of A1/B2/G1 subunits) was expressed by baculovirus in <i>Sf9 insect cells</i> using a C-terminal His tags. MW = 68kDa (A1), 36kDa (B2), 40kDa (G1).
Species	Human
Source	Sf9 Cells
Description	AMPK (A1/B2/G1) is a member of the AMPK family which are heterotrimeric proteins consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPKs are an important energy-sensing enzyme group in the cells that monitor energy status particularly in response to stress. AMPKs regulate fatty acid and cholesterol synthesis by regulating the key rate-limiting enzymes acetyl-CoA carboxylase and hydroxy beta-methylglutaryl-CoA reductase. The subunit may be a positive regulator of AMPK activity and is highly expressed in skeletal muscle.
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],PRKAB2 protein kinase, AMP-activated, beta 2 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, protein kinase, AMP-activated, beta 2 non-catalytic subunit; MGC61468; PRKAB2 ; AMP-activated protein kinase beta 2 non-catalytic subunit ; AMPK beta 2 ; AMPK beta-2 chain ; 5'''-AMP-activated protein kinase, beta-2 subunit ; OTTHUMP00000015910; 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	5562,5565,5571
mRNA Refseq	NM_006251,NM_005399,NM_002733
Protein Refseq	NP_006242,NP_005390,NP_002724
MIM	602739,602741,602742
UniProt ID	Q13131, O43741, P54619
Chromosome Location	5p12, 1q21.1, 12q12-q14
Pathway	Adipocytokine signaling pathway; Hypertrophic cardiomyopathy (HCM); Insulin signaling pathway; Regulation of autophagy; mTOR signaling pathway, Adipocytokine

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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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