

Recombinant Human Protein Kinase, AMP-Activated, Beta 1 Non-Catalytic Subunit, His-tagged

Cat. No. PRKAB1-4870H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human PRKAB1 (combination of A2/B2/G2 subunits) was expressed by baculovirus in Sf9 insect cells using C-terminal His tags.
Species	Human
Source	Sf9 Cells
Description	PRKAB1 exhibits a key role as a master regulator of cellular energy homeostasis. PRKAB1 exists as a heterotrimeric complex composed of a catalytic α subunit and regulatory β and γ subunits. Binding of AMP to the γ subunit allosterically activates the complex. PRKAB1 is activated in response to stresses that deplete cellular ATP (low glucose, hypoxia and ischemia) and via signaling pathways in response to adiponectin, leptin and CAMKK β .
Applications	Kinase Assay; Western Blot
Molecular Weight	69 kDa (A2), 36 kDa (B2), 65 kDa (G2)
Expression System	Sf9 insect cells using baculovirus
Form	Recombinant protein stored in 50 mM sodium phosphate, pH 7.0, 300 mM NaCl, 150 mM imidazole, 0.1 mM PMSF, 0.2 mM DTT, 25% glycerol.
Specific Activity	300 nmol/min/mg

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Purity	> 80 %
Concentration	0.1 ug/ul
Storage	Store product at -70oC. 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.
Pathways	PRKAB1 signaling; Adipocytokine signaling pathway; Direct p53 effectors; Energy Metabolism; IRS-mediated signalling; Hypertrophic cardiomyopathy (HCM); IRS-related events; Insulin receptor signalling cascade; Insulin signaling pathway; PI3K Cascade; PKB-mediated events; Regulation of AMPK activity via LKB1; Signaling by Insulin receptor; mTOR signalling

GENE INFORMATION

Gene Name	PRKAB1 protein kinase, AMP-activated, beta 1 non-catalytic subunit [Homo sapiens]
Official Symbol	PRKAB1
Synonyms	PRKAB1; protein kinase, AMP-activated, beta 1 non-catalytic subunit; AMPK; HAMPKb; MGC17785; 5"-AMP-activated protein kinase subunit beta-1; AMPKb; AMPK beta 1; AMPK beta -1 chain; OTTHUMP00000239813; OTTHUMP00000239814; AMPK subunit beta-1; AMP-activated protein kinase beta subunit; 5"-AMP-activated protein kinase beta-1 subunit; protein kinase, AMP-activated, noncatalytic, beta-1
Gene ID	5564
mRNA Refseq	NM_006253

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Protein Refseq	NP_006244
MIM	602740
UniProt ID	Q9Y478
Chromosome Location	12q24.1-q24.3
Function	AMP-activated protein kinase activity; cAMP-dependent protein kinase activity; protein binding; protein kinase binding
PDBrendering based on 1z0m.	

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