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PRKAB1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8569b

Product Information

Application	WB, E
Primary Accession	Q9Y478
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,κ
Clone Names	1420CT832.86.25
Calculated MW	30382

Additional Information

Gene ID	5564
Other Names	5'-AMP-activated protein kinase subunit beta-1, AMPK subunit beta-1, AMPKb, PRKAB1, AMPK
Target/Specificity	This PRKAB1 antibody is generated from a mouse immunized with a recombinant of human PRKAB1.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PRKAB1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRKAB1
Synonyms	AMPK
Function	Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK

activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3).

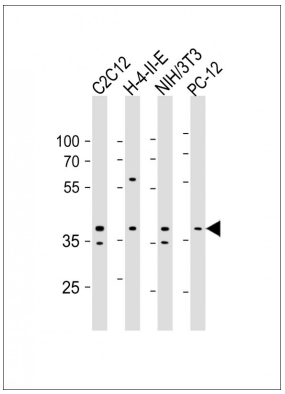
Background

Non-catalytic subunit of AMP-activated protein kinase (AMPK), an energy sensor protein kinase that plays a key role in regulating cellular energy metabolism. In response to reduction of intracellular ATP levels, AMPK activates energy-producing pathways and inhibits energy-consuming processes: inhibits protein, carbohydrate and lipid biosynthesis, as well as cell growth and proliferation. AMPK acts via direct phosphorylation of metabolic enzymes, and by longer-term effects via phosphorylation of transcription regulators. Also acts as a regulator of cellular polarity by remodeling the actin cytoskeleton; probably by indirectly activating myosin. Beta non-catalytic subunit acts as a scaffold on which the AMPK complex assembles, via its C-terminus that bridges alpha (PRKAA1 or PRKAA2) and gamma subunits (PRKAG1, PRKAG2 or PRKAG3).

References

Carling D.,et al.Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.
Stapleton D.,et al.FEBS Lett. 409:452-456(1997).
Yamagata K.,et al.Submitted (JAN-1997) to the EMBL/GenBank/DDBJ databases.
Wang X.,et al.Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
Scherer S.E.,et al.Nature 440:346-351(2006).

Images



All lanes : Anti-PRKAB1 Antibody at 1:2000 dilution Lane 1: C2C12 whole cell lysate Lane 2: H-4-II-E whole cell lysate Lane 3: NIH/3T3 whole cell lysate Lane 4: PC-12 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 30 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.