

产品名称: AMPK α 1(5G11)Mouse Monoclonal Antibody
产品货号: AMM06845



产品概述 (Summary)

产品名称 (Production Name)	AMPK α 1(5G11)Mouse Monoclonal Antibody
描述 (Description)	Mouse monoclonal Antibody
宿主 (Host)	Mouse
应用 (Application)	WB,IHC,ICC/IF
种属反应性 (Reactivity)	Human,Rat,Mouse

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Monoclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	PRKAA1 PRKAA1; AMPK1; 5'-AMP-activated protein kinase catalytic subunit alpha-1;
别名 (Alternative Names)	AMPK subunit alpha-1; Acetyl-CoA carboxylase kinase; ACACA kinase; Hydroxymethylglutaryl-CoA reductase kinase; HMGCR kinase; Tau-protein kinase PRKAA1
基因 ID (Gene ID)	5562.0
蛋白 ID (SwissProt ID)	Q13131.Synthetic Peptide of AMPK α 1

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:1000-1:2000,IHC 1:50-1:100,ICC/IF 1:50-1:200
蛋白分子量 (Molecular Weight)	63kDa

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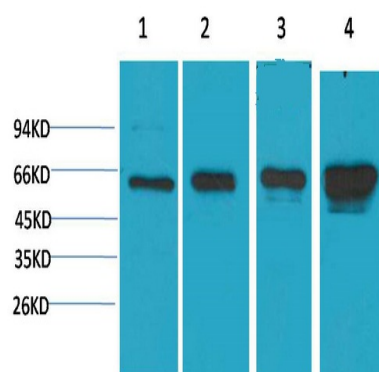
研究背景 (Background)

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). 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. [provided by RefSeq, Jul 2008], catalytic activity: ATP + a protein = ADP + a phosphoprotein., cofactor: Magnesium., enzyme regulation: Binding of AMP results in allosteric activation, inducing phosphorylation on Thr-174 by STK11 in complex with STE20-related adapter-alpha (STRAD alpha) pseudo kinase and CAB39. Also activated by phosphorylation by CAMKK2 triggered by a rise in intracellular calcium ions, without detectable changes in the AMP/ATP ratio., function: Responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. Appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. This is a catalytic subunit., sequence caution: Translation N-terminally shortened., similarity: Belongs to the protein kinase superfamily., similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily., similarity: Contains 1 protein kinase domain., subunit: Heterotrimer of an alpha catalytic subunit, a beta and a gamma non-catalytic subunits. Interacts with FNIP1 and FNIP2.,

研究领域 (Research Area)

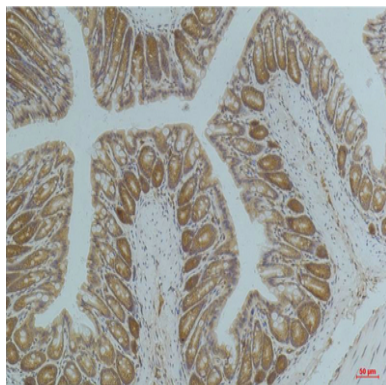
Regulation of autophagy; mTOR; Insulin_Receptor; Adipocytokine; Hypertrophic cardiomyopathy (HCM);

图片 (Image Data)



Western blot analysis of 1) HeLa, 2) 293T, 3) 3T3, 4) PC12 with AMPK α 1 Mouse mAb diluted at 1:2,000.

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Immunohistochemical analysis of paraffin-embedded Mouse ColonTissue using AMPK α 1 Mouse mAb diluted at 1:200.

注意事项 (Note)

For research use only .