

产品名称: AMPK α 1 Rabbit Polyclonal Antibody
产品货号: APRab06847



产品概述 (Summary)

产品名称 (Production Name)	AMPK α 1 Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC,ICC/IF,ELISA
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Unmodified
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
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.The antiserum was produced against synthesized peptide derived from human AMPK1. AA range:451-500

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
----------------------	--

产品名称: AMPK α 1 Rabbit Polyclonal Antibody
产品货号: APRab06847



蛋白分子量 (Molecular Weight) 65kDa

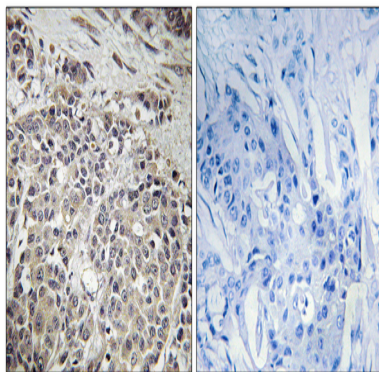
研究背景 (Background)

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)

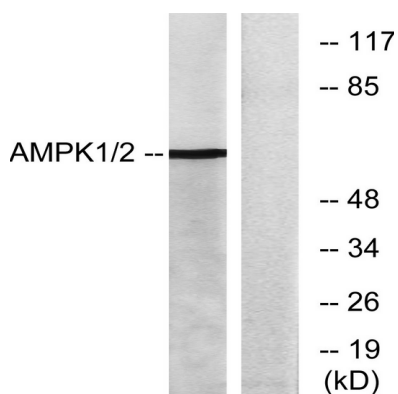
Insulin Receptor; mTOR; AMPK

图片 (Image Data)

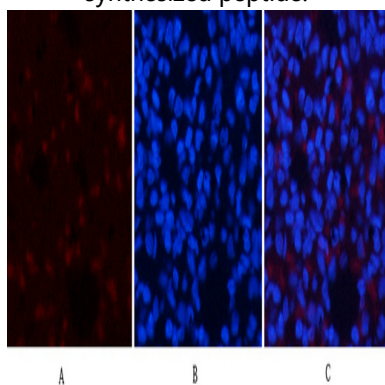


Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using AMPK1 Antibody. The picture on the right is blocked with the synthesized peptide.

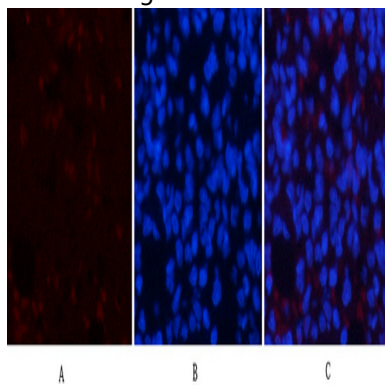
产品名称: AMPK α 1 Rabbit Polyclonal Antibody
产品货号: APRab06847



Western blot analysis of lysates from HT29 cells, using AMPK1 Antibody. The lane on the right is blocked with the synthesized peptide.

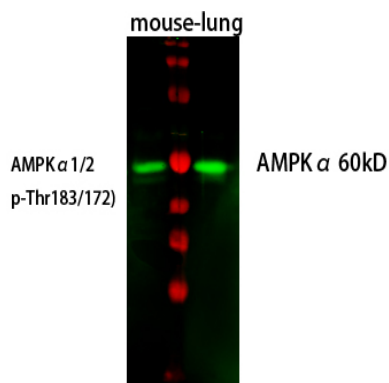


Immunofluorescence analysis of rat-lung tissue. 1,AMPK α 1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

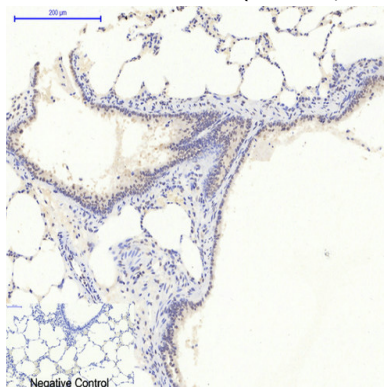


Immunofluorescence analysis of rat-lung tissue. 1,AMPK α 1 Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

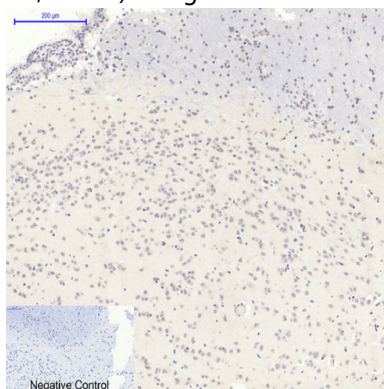
产品名称: AMPK α 1 Rabbit Polyclonal Antibody
产品货号: APRab06847



Western Blot analysis of mouse-lung cells using primary antibody diluted at 1:1000 (4°C overnight) . Secondary antibody: Goat Anti-rabbit IgG IRDye 800 (diluted at 1:5000, 25°C, 1 hour) . Cell lysate was extracted by Minute™ Plasma Membrane Protein Isolation and Cell Fractionation Kit (SM-005, Inventbiotech,MN,USA) .

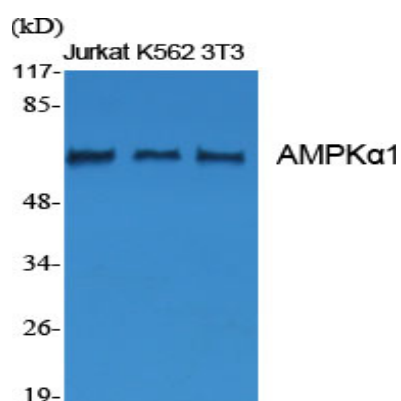


Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,AMPK α 1 Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.

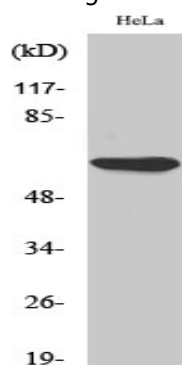


Immunohistochemical analysis of paraffin-embedded Rat-brain tissue. 1,AMPK α 1 Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min) . Negative control was used by secondary antibody only.

产品名称: AMPK α 1 Rabbit Polyclonal Antibody
产品货号: APRab06847



Western Blot analysis of various cells using AMPK α 1 Polyclonal Antibody diluted at 1: 1000



Western Blot analysis of HeLa cells using AMPK α 1 Polyclonal Antibody diluted at 1: 1000

注意事项 (Note)

For research use only .