腺苷酸活化蛋白激酶γ1单克隆抗体

产品货号： mlR33447

英文名称： AMPK gamma1

中文名称： 腺苷酸活化蛋白激酶γ1单克隆抗体

别　　名： PRKAG 1; PRKAG1; 5 -AMP-activated protein kinase gamma-1 subunit; 5' AMP activated protein kinase subunit gamma 1; AMP activated protein kinase noncatalytic gamma 1 subunit; AMPK gamma 1 chain; AMPKg; MGC8666; PRKAG 1; PRKAG1; Protein kinase AMP-activated gamma 1 non-catalytic subunit.

研究领域： 肿瘤　免疫学　信号转导　转录调节因子　激酶和磷酸酶

抗体来源： Mouse

克隆类型： Monoclonal

克 隆 号： 5A1

交叉反应： Human,

产品应用： WB=1:500-2000

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分 子 量： 36kDa

细胞定位： 细胞核 细胞浆 分泌型蛋白

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原： Recombinant human AMPK gamma1 Protein:

亚　　型： IgG1

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20° C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ° C.

PubMed : PubMed

产品介绍 ： The 5 AMP activated protein kinase (AMPK), a member of the SNF1 (sucrose non fermentor) kinase family, is a heterotrimeric protein comprise of alpha (63 kDa), beta (30 kDa) and gamma (38 kDa) subunits. The alpha subunit is the catalytic subunit, while beta and gamma are non catalytic subunits (although they have been found to interact with the active subunit in liver). AMPK regulates fatty acid and sterol synthesis by phosphorylation of acetyl CoA as well as cholesterol synthesis via phosphorylation and inactivation of hydroxymethylglutaryl CoA reductase. AMPK is activated by AMP and can be also regulated by treatment with purified protein phosphatase in vitro.

Function:

AMP/ATP-binding 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. Gamma non-catalytic subunit mediates binding to AMP, ADP and ATP, leading to activate or inhibit AMPK: AMP-binding results in allosteric activation of alpha catalytic subunit (PRKAA1 or PRKAA2) both by inducing phosphorylation and preventing dephosphorylation of catalytic subunits. ADP also stimulates phosphorylation, without stimulating already phosphorylated catalytic subunit. ATP promotes dephosphorylation of catalytic subunit, rendering the AMPK enzyme inactive.

Subunit:

AMPK is a heterotrimer of an alpha catalytic subunit (PRKAA1 or PRKAA2), a beta (PRKAB1 or PRKAB2) and a gamma non-catalytic subunits (PRKAG1, PRKAG2 or PRKAG3). Interacts with FNIP1 and FNIP2.

Subcellular Location:

Cytosol; Nucleus

Post-translational modifications:

Phosphorylated by ULK1 and ULK2; leading to negatively regulate AMPK activity and suggesting the existence of a regulatory feedback loop between ULK1, ULK2 and AMPK.

Similarity:

Belongs to the 5'-AMP-activated protein kinase gamma subunit family.

SWISS:

P54619

Gene ID:

5571

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

产品图片

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