

产品名称: AMPK $\alpha$ 1 (phospho Ser496) Rabbit Polyclonal Antibody  
产品货号: APRab04226



## 产品概述 (Summary)

|                        |                                                             |
|------------------------|-------------------------------------------------------------|
| 产品名称 (Production Name) | AMPK $\alpha$ 1 (phospho Ser496) 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,Other,Fish                                  |

## 产品性能 (Performance)

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| 偶联物 (Conjugation)   | Unconjugated                                                                                      |
| 修饰 (Modification)   | Phosphorylated                                                                                    |
| 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                                                                                                                                                                                                                           |
| 别名 (Alternative Names) | PRKAA1; AMPK1; 5'-AMP-activated protein kinase catalytic subunit alpha-1; 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 around the phosphorylation site of Ser496. AA range:451-500                                                                               |

## 产品应用 (Application)

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稀释比 (Dilution Ratio)

WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000

蛋白分子量 (Molecular Weight)

62kDa

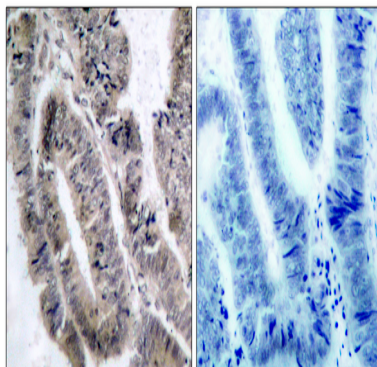
## 研究背景 (Background)

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

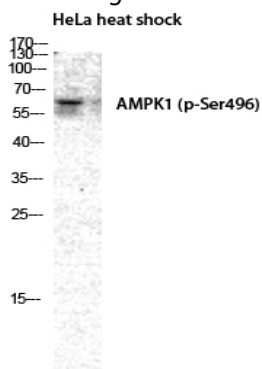
## 图片 (Image Data)



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Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using AMPK1 (Phospho-Ser485) Antibody. The picture on the right is blocked with the phospho peptide.



Western Blot analysis of HELA cells using Phospho-AMPK $\alpha$ 1 (S496) Polyclonal Antibody diluted at 1: 2000

### 注意事项 (Note)

For research use only .