abcam

Product datasheet

Alexa Fluor® 488 Anti-AMPK gamma 1 antibody [Y307] ab205423



重组 RabMAb

2 图像

概述

产品名称 Alexa Fluor® 488荧光Anti-AMPK gamma 1抗体[Y307]

描述 Alexa Fluor® 488荧光兔单克隆抗体[Y307] to AMPK gamma 1

宿主 Rabbit

偶联物 Alexa Fluor® 488. Ex: 495nm, Em: 519nm

经测试应用 适用干: ICC/IF 种属反应性 与反应: Human

免疫原 Synthetic peptide within Human AMPK gamma 1 aa 1-100 (N terminal). The exact sequence is

proprietary.

表位 ab205423 reacts with an epitope located in the N terminal region of AMPK gamma 1.

阳性对照 ICC/IF: Jurkat cells.

常规说明 Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

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outlicensing@thermofisher.com.

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Stable for 12 months at -20°C. Store In the Dark.

存储溶液 pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

纯**度** Protein A purified

 克隆
 单克隆

 克隆编号
 Y307

 同种型
 IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab205423于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		1/1000. This product gave a positive signal in Jurkat cells fixed with 80% methanol (5 min).

靶标

功能

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.

序列相似性

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

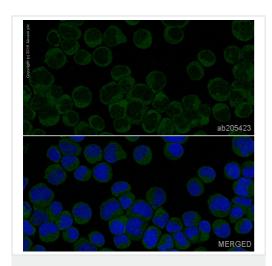
Contains 4 CBS domains.

结构域

The AMPK pseudosubstrate motif resembles the sequence around sites phosphorylated on target proteins of AMPK, except the presence of a non-phosphorylatable residue in place of Ser. In the absence of AMP this pseudosubstrate sequence may bind to the active site groove on the alpha subunit (PRKAA1 or PRKAA2), preventing phosphorylation by the upstream activating kinase STK11/LKB1.

The CBS domains mediate binding to AMP, ADP and ATP. 2 sites bind either AMP or ATP, whereas a third site contains a tightly bound AMP that does not exchange. Under physiological conditions AMPK mainly exists in its inactive form in complex with ATP, which is much more abundant than AMP.

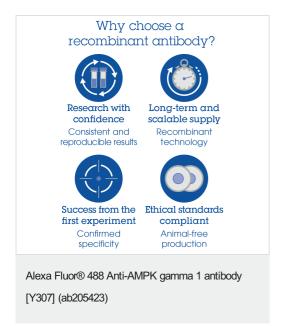
图片



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-AMPK gamma 1 antibody [Y307] (ab205423)

ab205423 staining AMPK gamma 1 in Jurkat cells. The cells were fixed with 80% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab205423 at 1/1000 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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