


Anti-AMPK gamma 1 antibody [Y308] ab32508

リコンビナント **RabMAb**

★★★★★ **7 Abreviews** **24 References** 画像数 5

製品の概要

製品名	Anti-AMPK gamma 1 antibody [Y308]
製品の詳細	Rabbit monoclonal [Y308] to AMPK gamma 1
由来種	Rabbit
特異性	This antibody recognises 5'-AMP-activated protein kinase (AMPK).
アプリケーション	適用あり: Flow Cyt (Intra), IP, WB 適用なし: ICC/IF or IHC
種交差性	交差種: Human 交差が予測される動物種: Mouse, Rat, African green monkey 
免疫原	Synthetic peptide within Human AMPK gamma 1 aa 300-400 (C terminal). The exact sequence is proprietary. (Peptide available as ab218345)
ポジティブ・コントロール	Jurkat whole cell lysate (ab7899). Flow Cyt (intra): HeLa cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified

ポリ/モノ	モノクローナル
クローン名	Y308
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab32508の使用に適用されます**
 アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

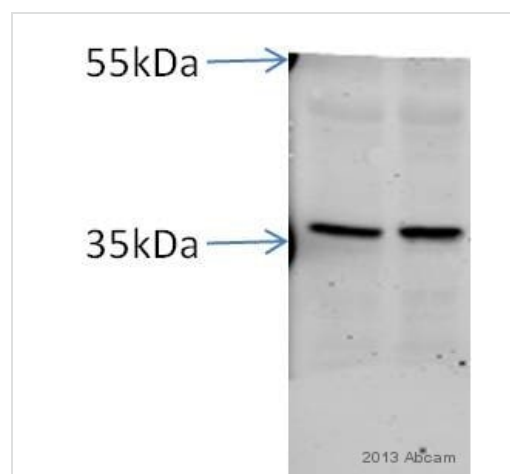
アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/100. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.
WB	★★★★★ (7)	1/1000 - 1/10000. Detects a band of approximately 38 kDa (predicted molecular weight: 38 kDa).

追加情報 Is unsuitable for ICC/IF or IHC.

ターゲット情報

機能	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.
配列類似性	Belongs to the 5'-AMP-activated protein kinase gamma subunit family. Contains 4 CBS domains.
ドメイン	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.
翻訳後修飾	Phosphorylated by ULK1 and ULK2; leading to negatively regulate AMPK activity and suggesting

画像



Western blot - Anti-AMPK gamma 1 antibody [Y308] (ab32508)

This image is courtesy of an anonymous Abreview

All lanes : Anti-AMPK gamma 1 antibody [Y308] (ab32508) at 1/1000 dilution

All lanes : HEK293 whole cell lysate

Lysates/proteins at 30 µg per lane.

Secondary

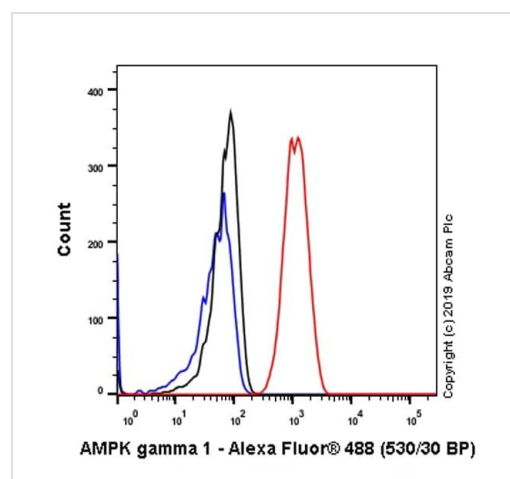
All lanes : Alexa Fluor® 690-conjugated Goat anti-rabbit IgG polyclonal at 1/10000 dilution

Performed under reducing conditions.

Predicted band size: 38 kDa

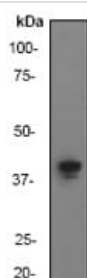
Observed band size: 38 kDa

Exposure time: 5 minutes



Flow Cytometry (Intracellular) - Anti-AMPK gamma 1 antibody [Y308] (ab32508)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling AMPK gamma 1 with ab32508 at 1/100 dilution (1µg) (Red). Goat anti rabbit IgG (Alexa Fluor®488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody. Cells were fixed with 4% paraformaldehyde. Rabbit monoclonal IgG ([ab172730](#)) was used as isotype control (Black). Unlabelled control: Cells without incubation with primary antibody and secondary antibody (Blue).

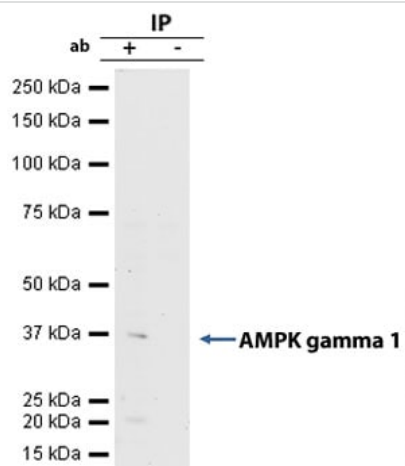


Western blot - Anti-AMPK gamma 1 antibody [Y308]
(ab32508)

Anti-AMPK gamma 1 antibody [Y308] (ab32508) at 1/1000 dilution
+ Jurkat cell lysate

Predicted band size: 38 kDa

Observed band size: 38 kDa



Immunoprecipitation - Anti-AMPK gamma 1 antibody
[Y308] (ab32508)

AMPK gamma 1 was immunoprecipitated using 1 mg Jurkat whole cell extract, 0.2 ug of Rabbit monoclonal [Y308] to AMPK gamma 1 and 50µl of protein G magnetic beads (lane 1). The antibody was incubated with the Protein G beads for 10min under agitation. No antibody was added to the control (lane 2). Jurkat whole cell extract diluted in RIPA buffer was added to each sample and incubated for 10min under agitation. Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70°C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab32508. Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) ([ab99697](#)). Bands: 37kDa: AMPK gamma 1.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-AMPK gamma 1 antibody [Y308] (ab32508)

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