## abcam

### **Product datasheet**

# Anti-AMPK alpha 1 antibody [2B7] ab110036

<u>14 References</u> 7 图像

#### 概述

产 <b>品名称</b>	Anti-AMPK alpha 1 <b>抗体</b> [2B7]		
描述	小鼠单克隆抗体[2B7] to AMPK alpha 1		
宿主	Mouse		
经 <b>测</b> 试应 <b>用</b>	适用于: WB, ICC/IF, ELISA, IHC-P, Flow Cyt		
种属反应性	<b>与反应:</b> Mouse, Rat, Human, African green monkey		
免疫原	Purified recombinant fragment of Human AMPK alpha 1 expressed in E. Coli.		
<b>阳性</b> 对照	Jurkat, HeLa, HepG2, MCF-7, Cos7, NIH3T3, K562, HEK293 and PC-12 cell lysates. Ovarian cancer and brain tissues. NTERA-2 and PC-2 cells WB: RAW 264.7, Mouse Liver, Neuro2A cell lysate.		
<b>常</b> 规说 <b>明</b>	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.		
	If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As		
性能			

形式	Liquid
存 <b>放</b> 说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	Preservative: 0.05% Sodium azide Constituent: PBS
纯 <b>度</b>	Protein G purified
纯 <b>化</b> 说明	Purified from tissue culture supernatant.
克隆	单 <b>克隆</b>
克 <b>隆</b> 编号	2B7
同种型	lgG1

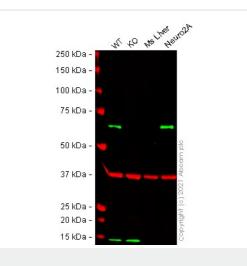
#### The Abpromise guarantee \_承诺保证使用ab110036于以下的经测试应用

"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
WB		1/500 - 1/2000. Predicted molecular weight: 64 kDa.
ICC/IF		1/200 - 1/1000.
ELISA		1/10000.
IHC-P		1/200 - 1/1000.
Flow Cyt		1/200 - 1/1000. <u>ab170190</u> - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.

<b>靶</b> 标	
功能	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.
序列相似性	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. SNF1 subfamily. Contains 1 protein kinase domain.

图片



Western blot - Anti-AMPK alpha 1 antibody [2B7] (ab110036) **All lanes :** Anti-AMPK alpha 1 antibody [2B7] (ab110036) at 1/500 dilution

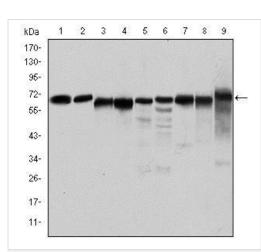
- Lane 1 : Wild-type RAW 264.7 cell lysate
- Lane 2 : PRKAA1 knockout RAW 264.7 cell lysate
- Lane 3 : Mouse Liver cell lysate
- Lane 4 : Neuro2A cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 64 kDa Observed band size: 64 kDa

False colour image of Western blot: Anti-AMPK alpha 1 antibody [2B7] staining at 1/500 dilution, shown in green; Rabbit Anti-GAPDH antibody [EPR16891] (ab181602) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab110036 was shown to bind specifically to AMPK alpha 1. A band was observed at 64 kDa in wild-type RAW 264.7 cell lysates with no signal observed at this size in PRKAA1 knockout cell line ab280055 (knockout cell lysate ab280114). To generate this image, wild-type and PRKAA1 knockout RAW 264.7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged.Secondary antibodies used were Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (ab216772) and Goat anti-Rabbit lgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (ab216777) at 1/20000 dilution.

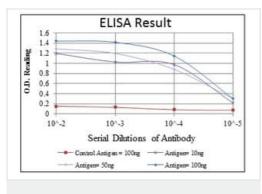


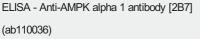
Western blot - Anti-AMPK alpha 1 antibody [2B7] (ab110036)

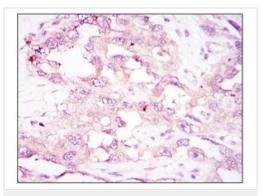
**All lanes :** Anti-AMPK alpha 1 antibody [2B7] (ab110036) at 1/500 dilution

Lane 1 : Jurkat cell lysate. Lane 2 : HeLa cell lysate. Lane 3 : HepG2 cell lysate. Lane 4 : MCF-7 cell lysate. Lane 5 : Cos7 cell lysate. Lane 6 : NIH3T3 cell lysate. Lane 7 : K562 cell lysate. Lane 8 : HEK293 cell lysate. Lane 9 : PC-12 cell lysate.

Predicted band size: 64 kDa Observed band size: 64 kDa



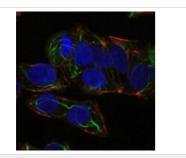




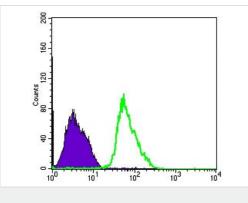
ab110036 at 1/200 dilution staining AMPK alpha 1 in paraffinembedded ovarian cancer by Immunohistochemistry.

The proposed dilution of ab110036 is 1/10000.

Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-AMPK alpha 1 antibody [2B7] (ab110036)

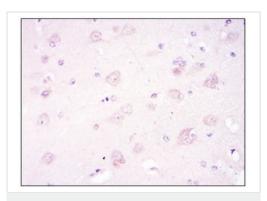


Immunocytochemistry/ Immunofluorescence - Anti-AMPK alpha 1 antibody [2B7] (ab110036) ab110036 at 1/200 dilution staining AMPK alpha 1 in NTERA-2 cells (green) by Immunofluorescence. The nuclei are stained with DRAQ5 fluorescent DNA dye (blue) and the Actin filaments have been labeled with Alexa Fluor-555 phalloidin (red).



ab110036 used in Flow cytometric analysis of PC-2 cells (green). The negative control is indicated in purple.

Flow Cytometry - Anti-AMPK alpha 1 antibody [2B7] (ab110036)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-AMPK alpha 1 antibody [2B7] (ab110036)

ab110036 at 1/200 dilution staining AMPK alpha 1 in paraffinembedded brain tissues by Immunohistochemistry.

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