

Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] ab110277

敲除验证

★★★★★ **2 Abreviews** **24 References** **5 图像**

概述

产品名称	Anti-ATPase Inhibitory Factor 1/IF1抗体[5E2D7]
描述	小鼠单克隆抗体[5E2D7] to ATPase Inhibitory Factor 1/IF1
宿主	Mouse
经测试应用	适用于: ICC/IF, Flow Cyt, WB
种属反应性	与反应: Mouse, Rat, Cow, Human
免疫原	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
阳性对照	Isolated mitochondria from Human heart, Bovine heart, Rat heart and Mouse heart IF/ICC: HepG2 cell line.
常规说明	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>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.</p> <p>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</p> <p>Product was previously marketed under the MitoSciences sub-brand.</p>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C. Do Not Freeze.
存储溶液	<p>pH: 7.5</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: HEPES buffered saline</p>
纯化说明	The purity of ab110277 is near homogeneity, as judged by SDS-PAGE. ab110277 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.

克隆	单克隆
克隆编号	5E2D7
同种型	IgG1
轻链类型	kappa

应用

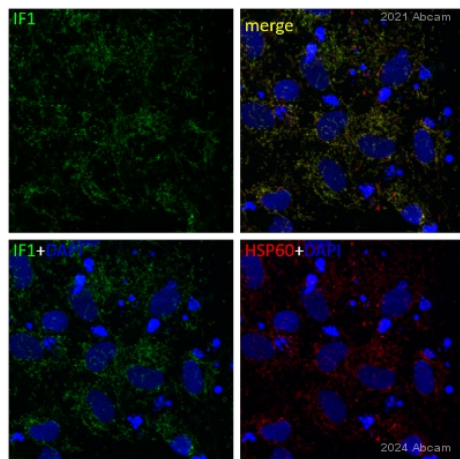
The Abpromise guarantee **Abpromise™**承诺保证使用ab110277于以下的经测试应用
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF		Use a concentration of 10 µg/ml.
Flow Cyt		Use 1µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 10,18 kDa (predicted molecular weight: 12 kDa).

靶标

功能	Endogenous F(1)F(o)-ATPase inhibitor limiting ATP depletion when the mitochondrial membrane potential falls below a threshold and the F(1)F(o)-ATP synthase starts hydrolyzing ATP to pump protons out of the mitochondrial matrix.
序列相似性	Belongs to the ATPase inhibitor family.
翻译后修饰	Exhibits variability in chain length, mitochondria have distinct pools of protein cleaved after the 24th, 25th, and 26th amino acid.
细胞定位	Mitochondrion.

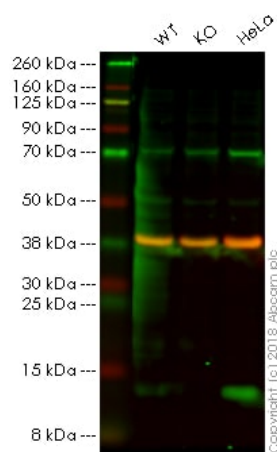
图片



Immunocytochemistry - Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277)

This image is courtesy of an anonymous Abreview

Immunocytochemistry analysis of paraformaldehyde-fixed rat primary cardiac fibroblasts permeabilized with 1% Triton for 4 min staining with ab110277 at 1/50 dilution. Secondary antibody was Dylight™ 488 donkey anti mouse at 1/100 dilution. Samples were incubated with the primary antibody with PBST for 30 minutes at 25°C



Western blot - Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277)

All lanes : Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277) at 1 µg/ml

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : ATPase Inhibitory Factor 1 / IF1 knockout HAP1 whole cell lysate

Lane 3 : HeLa whole cell lysate

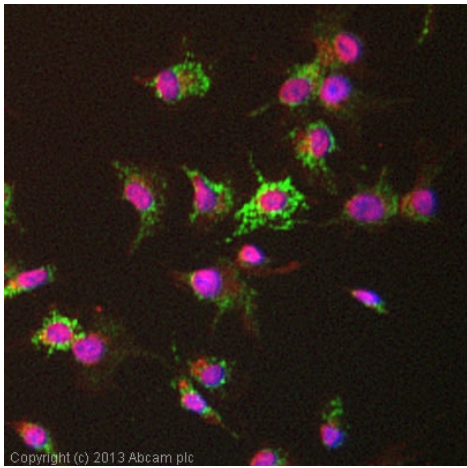
Lysates/proteins at 20 µg per lane.

Predicted band size: 12 kDa

Lanes 1 - 3: Merged signal (red and green). Green - ab110277 observed at 12 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

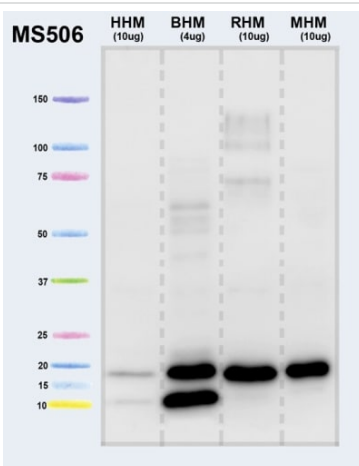
ab110277 was shown to recognize ATPase Inhibitory Factor 1 / IF1 in wild-type HAP1 cells as signal was lost at the expected MW in ATPase Inhibitory Factor 1 / IF1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and ATPase Inhibitory Factor 1 / IF1 knockout samples were subjected to SDS-PAGE. Ab110277 and **ab181602** (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed **ab216772** and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed **ab216777** secondary antibodies at 1/20000 dilution

for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277)

ICC/IF image of ab110277 stained HepG2 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab110277, 10µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96879](#), DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM



Western blot - Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277)

All lanes : Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277) at 1 µg/ml

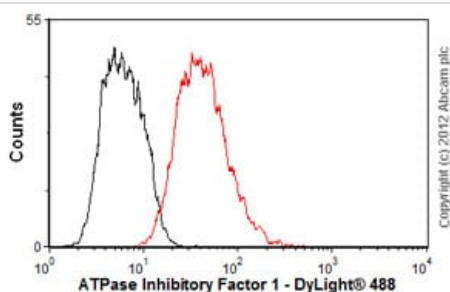
Lane 1 : Human heart mitochondria at 10 µg

Lane 2 : Bovine heart mitochondria at 4 µg

Lane 3 : Rat heart mitochondria at 10 µg

Lane 4 : Mouse heart mitochondria at 10 µg

Predicted band size: 12 kDa



Flow Cytometry - Anti-ATPase Inhibitory Factor 1/IF1 antibody [5E2D7] (ab110277)

Overlay histogram showing HepG2 cells stained with ab110277 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab110277, 1µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab91353](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] ([ab91353](#), 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors