

Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker ab5432

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概述

产品名称	Anti-ATPB抗体[4.3E8.D10] - Mitochondrial Marker
描述	小鼠单克隆抗体[4.3E8.D10] to ATPB - Mitochondrial Marker
宿主	Mouse
特异性	Detects the beta subunit of ATP synthase (ATPB) from mouse rat and human samples. This antibody is useful as a mitochondrial marker.
经测试应用	适用于: WB, ICC/IF, IP
种属反应性	与反应: Mouse, Rat, Human
免疫原	Tissue, cells or virus corresponding to ATPB. Intact rat mitochondria.
阳性对照	ICC/IF: 3T3, HEK293T, A431, rat neuronal glial cells, HeLa; IP: rat neuronal/glial cells, THP-1 cells; WB: human testis tissue lysate
常规说明	<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>

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 or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.1% BSA
纯度	Affinity purified
克隆	单克隆
克隆编号	4.3E8.D10
同种型	IgG1

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab5432于以下的经测试应用

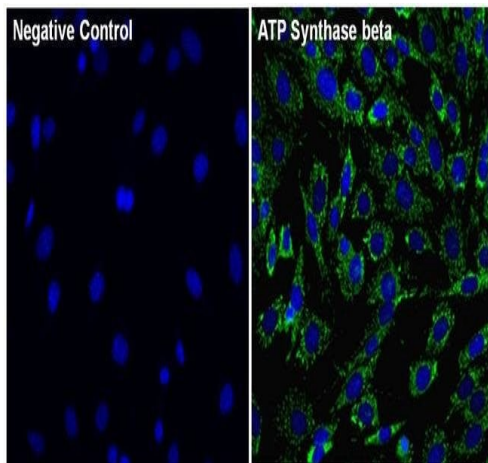
“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★☆☆☆☆ (1)	Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 57 kDa (predicted molecular weight: 57 kDa).
ICC/IF		1/100 - 1/1000.
IP		Use a concentration of 2 - 5 µg/ml. By immunoprecipitation, this antibody detects an 50 kDa protein representing ATP synthase (ATPB) from solubilized rat brain mitochondria.

靶标

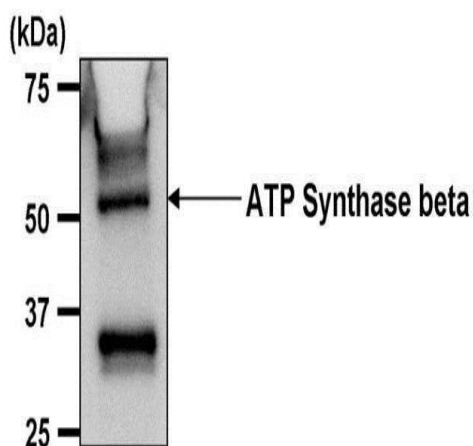
功能	Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits.
序列相似性	Belongs to the ATPase alpha/beta chains family.
细胞定位	Mitochondrion. Mitochondrion inner membrane. Peripheral membrane protein.

图片



Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Immunocytochemistry analysis of ATPB using ab5432 at 5µg/mL concentration shows staining in 4% paraformaldehyde-fixed 3T3 Cells. Secondary was Goat anti-Mouse IgG (H+L) Superclonal Secondary Antibody, Alexa Fluor® 488 conjugate at 1/1000 dilution. ATPB (green), and nuclei with Hoechst 33342 dye (blue) is shown. Negative control has no primary antibody

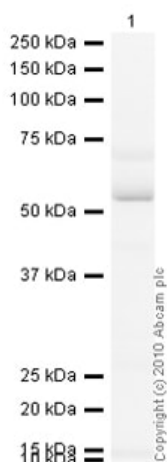


Immunoprecipitation - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

ATPB was immunoprecipitated from THP-1 whole cell lysate with 5 µL ab5432.

Lane 1: ab5432 IP in THP-1 whole cell lysate, with HRP-conjugated goat anti-mouse IgG secondary

Detection: Chemiluminescence



Western blot - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432) at 1 µg/ml + Human testis tissue lysate - total protein ([ab30257](#)) at 20 µg

Secondary

Goat Anti-Mouse IgG H&L (HRP) preadsorbed ([ab97040](#)) at 1/5000 dilution

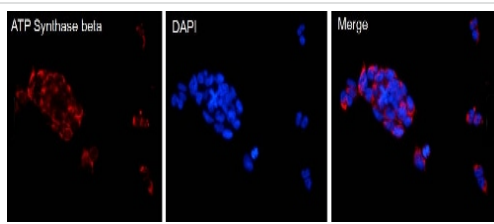
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 57 kDa

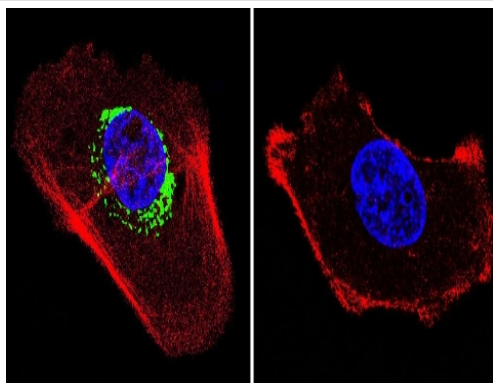
Observed band size: 57 kDa

Exposure time: 16 minutes



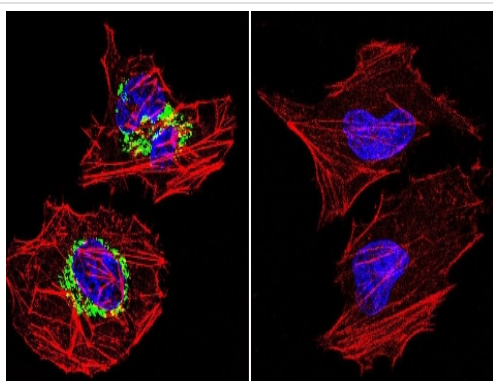
Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Immunocytochemistry/Immunofluorescent analysis of ATPB (red) in HEK293T cells. Cells fixed with 4% formaldehyde were permeabilized and blocked with 1X PBS containing 5% BSA and 0.3% Triton X-100 for 1 hour at room temperature. Cells were probed with ab5432 at 1:100 overnight at 4°C in 1X PBS containing 1% BSA and 0.3% Triton X-100, washed with 1X PBS, and incubated with a fluorophore-conjugated goat anti-mouse IgG secondary antibody at a dilution of 1:200 for 1 hour at room temperature. Nuclei (blue) were stained with DAPI. Images were taken on a Leica DM1000 microscope at 40X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Immunofluorescent analysis of ATPB in A431 cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a ATPB monoclonal antibody (ab5432) at a dilution of 1:200 overnight at 4 C and incubated with a DyLight-488 conjugated secondary antibody. ATPB staining (green) F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



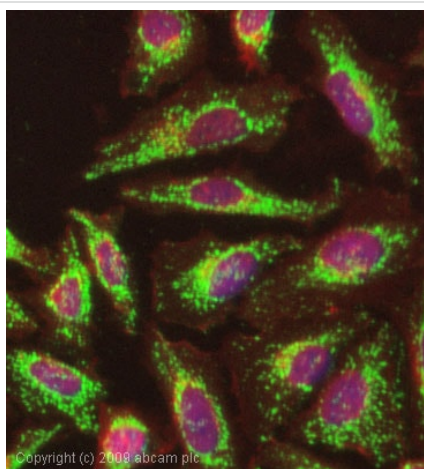
Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Immunofluorescent analysis of ATPB in HeLa cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a ATPB monoclonal antibody (ab5432) at a dilution of 1:200 overnight at 4 C and incubated with a DyLight-488 conjugated secondary antibody. ATPB staining (green) F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



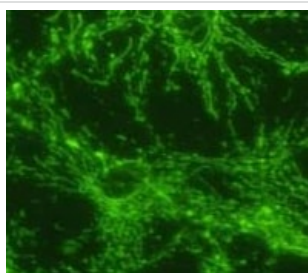
Immunoprecipitation - Anti-ATPB antibody
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Immunoprecipitation of rat neuronal/glial cell extract using ab5432.



Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

ICC/IF image of ab5432 stained HeLa cells. The cells were 4% PFA 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 (ab5432, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 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.



Immunocytochemistry/ Immunofluorescence - Anti-ATPB antibody [4.3E8.D10] - Mitochondrial Marker (ab5432)

Immunocytochemistry/Immunofluorescence analysis of rat neuronal/glial cell culture using ab5432.

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