


## Product datasheet

# FITC Anti-ATP5A antibody [15H4C4] - Mitochondrial Marker ab119688

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### Overview

<b>Product name</b>	FITC Anti-ATP5A antibody [15H4C4] - Mitochondrial Marker
<b>Description</b>	FITC Mouse monoclonal [15H4C4] to ATP5A - Mitochondrial Marker
<b>Host species</b>	Mouse
<b>Conjugation</b>	FITC. Ex: 493nm, Em: 528nm
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, Flow Cyt (Intra)
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat, Cow, Caenorhabditis elegans, Drosophila melanogaster, Monkey, Other species 
<b>Immunogen</b>	Full length native protein (purified) corresponding to Cow ATP5A. Bovine Complex V.
<b>Positive control</b>	Flow Cyt (Intra): HeLa cells. ICC/IF: HeLa cells
<b>General notes</b>	<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&amp;As</p> <p>Product was previously marketed under the MitoSciences sub-brand.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
<b>Storage buffer</b>	Preservative: 0.02% Sodium azide Constituents: 98% PBS, 1% BSA
<b>Purity</b>	Ammonium Sulphate Precipitation
<b>Purification notes</b>	Purity is near homogeneity as judged by SDS-PAGE. The antibody was produced in vitro using

hybridomas grown in serum-free medium, and then concentrated by ammonium sulfate precipitation.

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	15H4C4
<b>Isotype</b>	IgG2b
<b>Light chain type</b>	kappa

## Applications

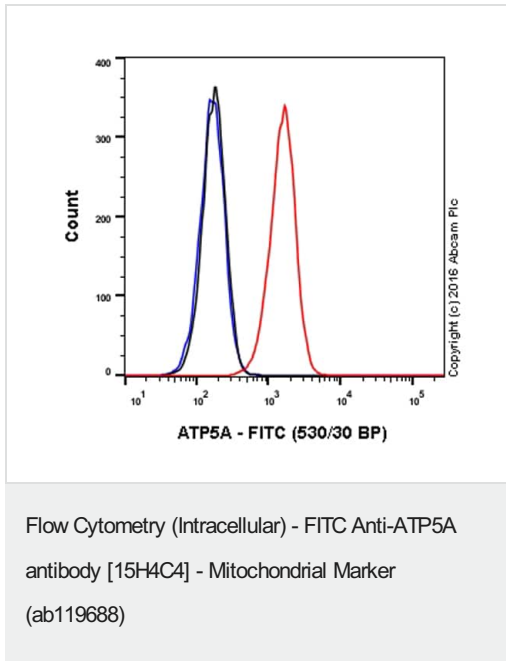
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab119688 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min)
Flow Cyt (Intra)		1/100. <b>ab18427</b> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

## Target

<b>Function</b>	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. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites.
<b>Tissue specificity</b>	Fetal lung, heart, liver, gut and kidney. Expressed at higher levels in the fetal brain, retina and spinal cord.
<b>Sequence similarities</b>	Belongs to the ATPase alpha/beta chains family.
<b>Post-translational modifications</b>	The N-terminus is blocked.
<b>Cellular localization</b>	Mitochondrion inner membrane. Peripheral membrane protein.

## Images

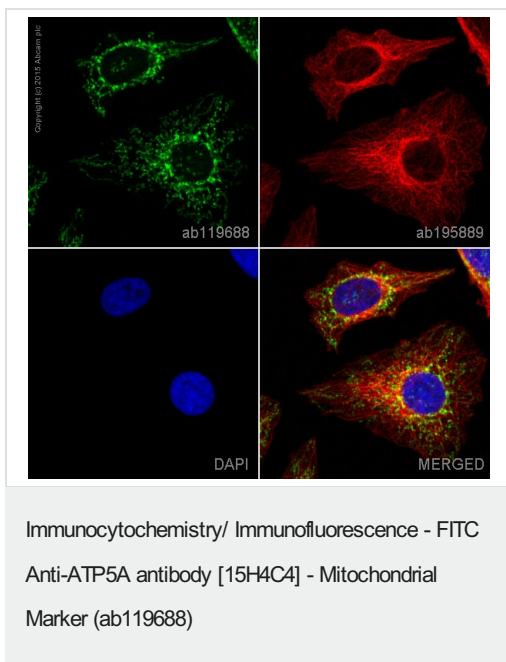


Overlay histogram showing HeLa cells stained with ab119688 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab119688, 1/100 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was mouse IgG2b FITC (**ab18419**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

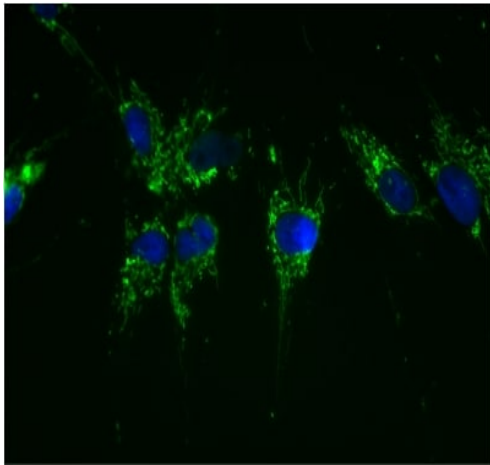
This antibody gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.



ab119688 staining ATP5A in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), 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 ab119688 at 1/100 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (**pseudocolored in red**). Nuclear DNA was labelled with DAPI (shown in blue).

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

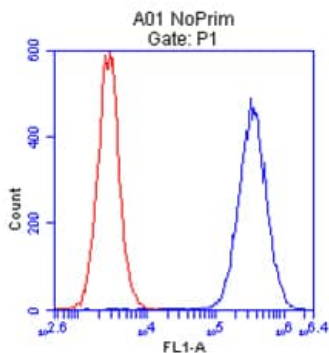
This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 100% methanol (5min).



Immunocytochemistry/ Immunofluorescence - FITC  
Anti-ATP5A antibody [15H4C4] - Mitochondrial  
Marker (ab119688)

Mitochondrial localization of ATP5A using antibody ab119688.

Cultured HeLa cells were fixed, permeabilized and then labeled with 15H4C4-FITC (1 µg/ml). Since the antibody is labeled with FITC no secondary antibody is necessary.



Flow Cytometry (Intracellular) - FITC Anti-ATP5A  
antibody [15H4C4] - Mitochondrial Marker  
(ab119688)

Overlay histogram showing HeLa cells stained with ab119688 (blue line). The cells were fixed with 4% paraformaldehyde (10 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 ab119688 (15H4C4 FITC) at 1µg/1xE6/mL cells for 30 min at 22°C. Negative control (red line) is unstained d cells.

Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

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

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