

## Product datasheet

### Anti-ATP5C1 antibody [2A1AA11] ab119686

[7 References](#) [4 Images](#)

#### Overview

<b>Product name</b>	Anti-ATP5C1 antibody [2A1AA11]
<b>Description</b>	Mouse monoclonal [2A1AA11] to ATP5C1
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, Flow Cyt, ICC/IF, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Cow, Human
<b>Immunogen</b>	Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	This antibody gave a positive result in IHC in the following FFPE tissue: Human normal heart muscle.
<b>General notes</b>	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a>.</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&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). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.5</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: 99% HEPES buffered saline</p>
<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>	2A1AA11
<b>Isotype</b>	IgG2b
<b>Light chain type</b>	kappa

## Applications

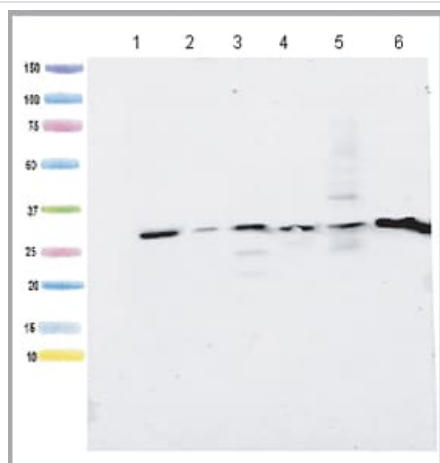
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab119686 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		Use a concentration of 1 µg/ml. Predicted molecular weight: 33 kDa.
<b>Flow Cyt</b>		Use a concentration of 1 µg/ml. <b>ab170192</b> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
<b>ICC/IF</b>		Use a concentration of 1 µg/ml.
<b>IHC-P</b>		Use a concentration of 5 µg/ml.

## 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. Part of the complex F(1) domain and the central stalk which is part of the complex rotary element. The gamma subunit protrudes into the catalytic domain formed of alpha(3)beta(3). 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.
<b>Tissue specificity</b>	Isoform Heart is expressed specifically in the heart and skeletal muscle, which require rapid energy supply. Isoform Liver is expressed in the brain, liver and kidney. Isoform Heart and Isoform Liver are expressed in the skin, intestine, stomach and aorta.
<b>Sequence similarities</b>	Belongs to the ATPase gamma chain family.
<b>Cellular localization</b>	Mitochondrion. Mitochondrion inner membrane.

## Images



Western blot - Anti-ATP5C1 antibody [2A1AA11] (ab119686)

**All lanes** : Anti-ATP5C1 antibody [2A1AA11] (ab119686) at 1 µg/ml

**Lane 1** : human heart homogenate lysate at 15 µg

**Lane 2** : human HepG2 cell lysate at 15 µg

**Lane 3** : human liver mitochondria lysate at 7.5 µg

**Lane 4** : rat liver mitochondria lysate at 7.5 µg

**Lane 5** : mouse liver mitochondria lysate at 7.5 µg

**Lane 6** : bovine heart mitochondria lysate at 7.5 µg

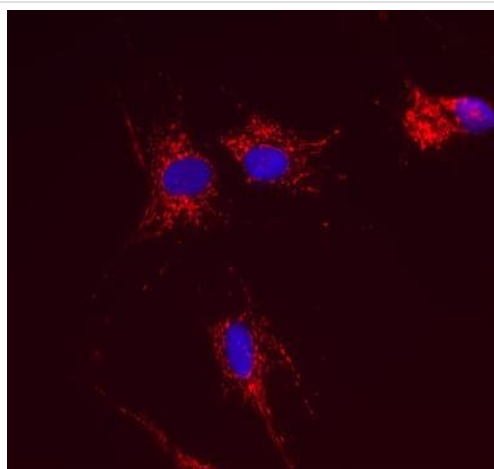
### Secondary

**All lanes** : Goat anti-mouse HRP at 1/5000 dilution

Developed using the ECL technique.

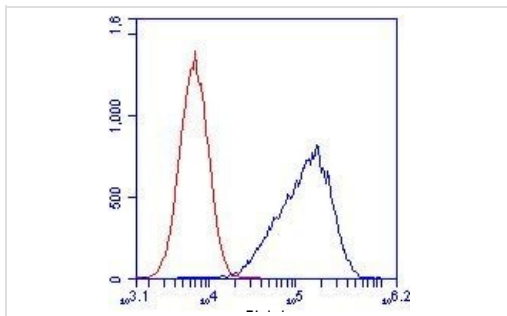
Performed under reducing conditions.

**Predicted band size:** 33 kDa



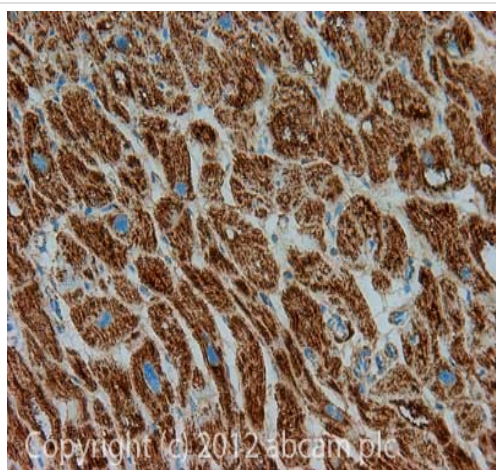
Immunocytochemistry/ Immunofluorescence - Anti-ATP5C1 antibody [2A1AA11] (ab119686)

Immunocytochemistry using ab119686 stained HDFn cells (human). The cells were paraformaldehyde fixed (4%, 20 min) and Triton X-100 permeabilized (0.1%, 15min) with antigen retrieval. The cells were then incubated with the antibody (ab119686, 1µg/ml) for 2h at room temperature or over night at 4°C. The secondary antibody was (red) 594 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. 10% Goat serum was used as the blocking agent for all blocking steps. The target protein locates to the mitochondria.



Flow Cytometry - Anti-ATP5C1 antibody [2A1AA11]  
(ab119686)

Flow cytometry. Hela cells were stained with 1 µg/mL anti-ATP5C1 antibody (ab119686) (blue) or an equal amount of an isotype control antibody (red) and analyzed by flow cytometry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATP5C1 antibody [2A1AA11] (ab119686)

IHC image of ATP5C1 staining in Human normal heart muscle formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab119686, 5 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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