

Product datasheet

Anti-ATP5F1 antibody [9D1BC4] ab117991

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

Overview

Product name	Anti-ATP5F1 antibody [9D1BC4]
Description	Mouse monoclonal [9D1BC4] to ATP5F1
Host species	Mouse
Tested applications	Suitable for: IHC-P, WB, Flow Cyt, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Cow, Human
Immunogen	Tissue, cells or virus. This information is considered to be commercially sensitive.
Positive control	Human normal colon FFPE tissue.
General notes	<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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
Purity	Ammonium Sulphate Precipitation
Clonality	Monoclonal
Clone number	9D1BC4
Isotype	IgG2b

Light chain type

kappa

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab117991 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
IHC-P		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 24.6 kDa.
Flow Cyt		Use a concentration of 1 µg/ml. ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 1 µg/ml.

Target

Function

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(0) domain and the peripheral stalk, which acts as a stator to hold the catalytic alpha(3)beta(3) subcomplex and subunit a/ATP6 static relative to the rotary elements.

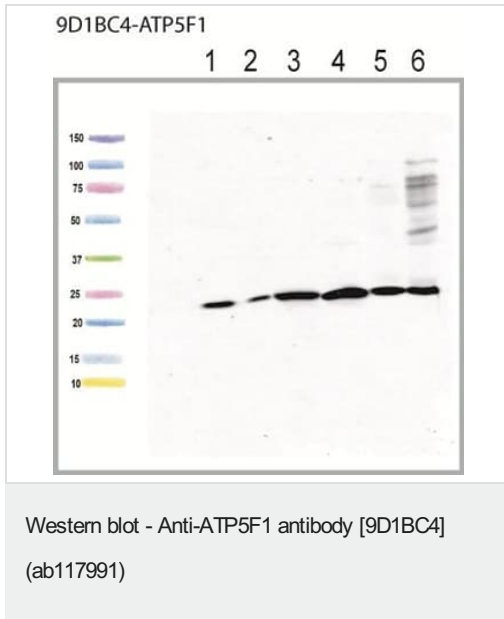
Sequence similarities

Belongs to the eukaryotic ATPase B chain family.

Cellular localization

Mitochondrion. Mitochondrion inner membrane.

Images



All lanes : Anti-ATP5F1 antibody [9D1BC4] (ab117991) at 1 µg/ml

Lane 1 : Human heart homogenate at 15 µg

Lane 2 : HepG2 lysate at 15 µg

Lane 3 : Human liver mitochondria at 7.5 µg

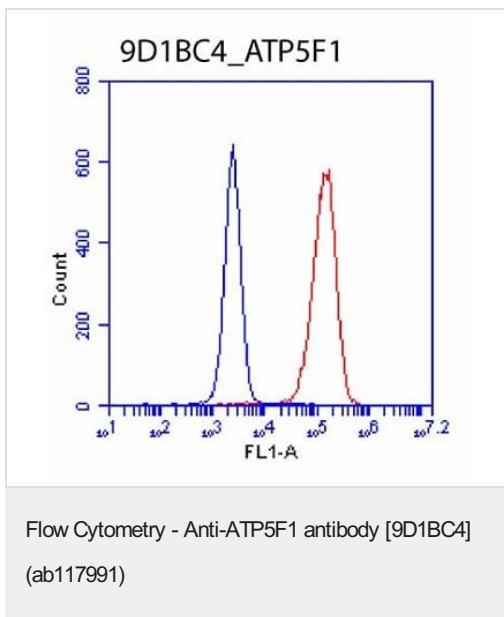
Lane 4 : Bovine heart mitochondria at 7.5 µg

Lane 5 : Rat liver mitochondria at 7.5 µg

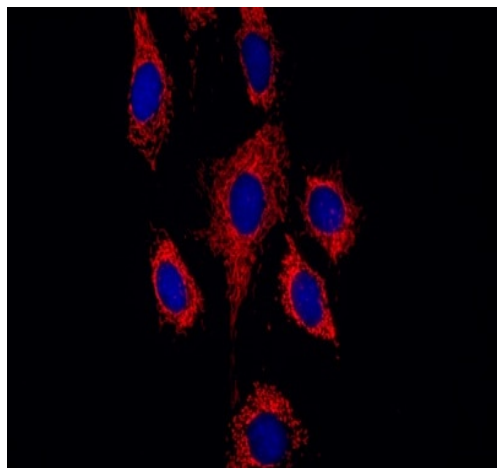
Lane 6 : Mouse liver mitochondria at 7.5 µg

Predicted band size: 24.6 kDa

Note - Extra bands seen in lane 6 are secondary antibody mouse-on-mouse effects and not related to the primary antibody.

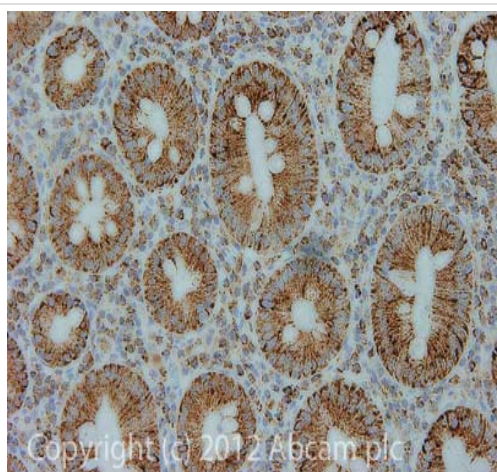


ab117991 at 1 ug/ml with Hela cells in flow cytometry.



Immunocytochemistry/ Immunofluorescence - Anti-ATP5F1 antibody [9D1BC4] (ab117991)

Immunocytochemistry image of ab117991 (MS972) stained NIH3T3 cells. The cells were paraformaldehyde fixed (4%, 20 min) and Triton X-100 permeabilized (0.1%, 15min) with urea/heat antigen retrieval method. The cells were incubated with ab117991 at 1 µg/ml for 2h at room temperature or over night at 4°C. The secondary antibody was (red) AlexaFluor® 594goat 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. DAPI was used to stain the cell nuclei (blue). The target protein locates to the mitochondria. The four cells in the upper portion of the image show mitochondria in the elongated, reticular, arrangement, the three cells in the lower portion of the image show a punctuate mitochondrial organization and may be dividing/have recently divided.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ATP5F1 antibody [9D1BC4] (ab117991)

IHC image of ATP5F1 staining in Human normal colon 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 ab117991, 5µg/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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