abcam

Product datasheet

Anti-ATP5A antibody [7H10BD4F9] ab110273

★★★★★ 7 Abreviews 76 References 3 Images

Overview

Product name	Anti-ATP5A antibody [7H10BD4F9]
Description	Mouse monoclonal [7H10BD4F9] to ATP5A
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Cow, Human
Immunogen	Full length protein corresponding to Cow ATP5A.
Positive control	Isolated mitochondria from Human, Rat, Bovine and Mouse Heart, and HepG2, Cultured Human embryonic lung-derived fibroblasts (strain MRC5), HL-60 cells
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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. 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 Product was previously marketed under the MitoSciences sub-brand.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
Purity	IgG fraction
Purification notes	Near homogeneity as judged by SDS-PAGE. ab110273 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation.
Clonality	Monoclonal

Clone number	7H10BD4F9
Isotype	IgG2b
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab110273 in the following tested applications.

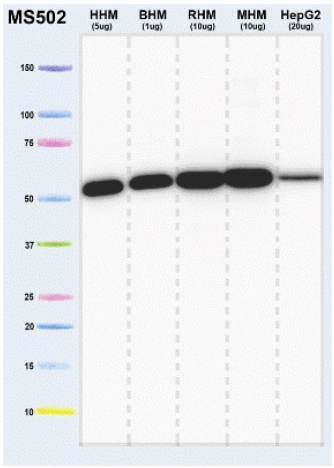
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ **(6)**	Use a concentration of 1 - 2 µg/ml. Predicted molecular weight: 60 kDa.
ICC/IF	★★★★★ **(1)**	Use a concentration of 5 µg/ml.
Flow Cyt		Use a concentration of 1 µg/ml. **ab170192** - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

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. 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.
Tissue specificity	Fetal lung, heart, liver, gut and kidney. Expressed at higher levels in the fetal brain, retina and spinal cord.
Sequence similarities	Belongs to the ATPase alpha/beta chains family.
Post-translational modifications	The N-terminus is blocked.
Cellular localization	Mitochondrion inner membrane. Peripheral membrane protein.

Images

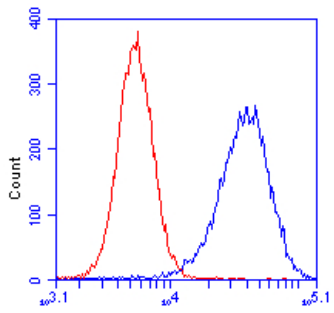


Western blot - Anti-ATP5A antibody [7H10BD4F9] (ab110273)

All lanes : Anti-ATP5A antibody [7H10BD4F9] (ab110273) at 1 µg/ml

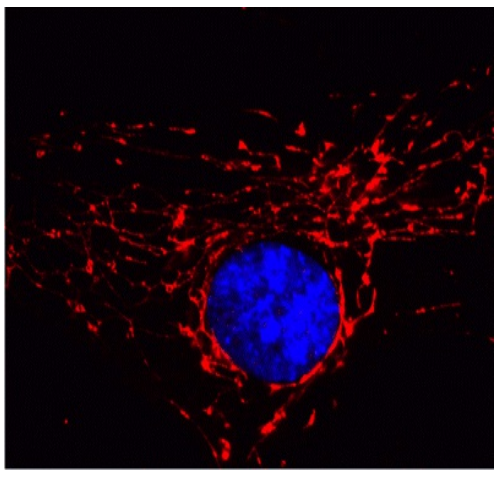
Lane 1 : Human heart mitochondria at 5 µg
Lane 2 : Bovine heart mitochondria at 1 µg
Lane 3 : Rat heart mitochondria at 10 µg
Lane 4 : Mouse heart mitochondria at 10 µg
Lane 5 : HepG2 mitochondria at 20 µg

Predicted band size: 60 kDa



Flow Cytometry - Anti-ATP5A antibody [7H10BD4F9] (ab110273)

HL-60 cells were stained with 1 µg/mL ab110273 (blue) or an equal amount of an isotype control antibody (red) and analyzed by flow cytometry.



Immunocytochemistry/ Immunofluorescence - Anti-ATP5A antibody [7H10BD4F9] (ab110273)

Mitochondrial localization of ATP5A. Cultured Human embryonic lung-derived fibroblasts (strain MRC5) were fixed, permeabilized and then labeled with ab110273 (2 µg/ml) followed by an Alexa Fluor® 594-conjugated-goat-anti-mouse IgG2b isotype specific secondary antibody (2 µg/ml).

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