abcam

Product datasheet

Anti-MTCO2 antibody [12C4F12] ab110258

18 Abreviews 219 References 3 Images

Overview

Product name	Anti-MTCO2 antibody [12C4F12]
Description	Mouse monoclonal [12C4F12] to MTCO2
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Full length native protein (purified). This information is considered to be commercially sensitive.
Positive control	WB: Mitochondrial lysate from human heart tissue. ICC/IF: Cultured human embryonic lung derived fibroblasts. Flow Cyt: HeLa 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.
Storage buffer	pH: 7.5 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline
Purity	IgG fraction
Purification notes	ab110258 was produced in vitro using hybridomas grown in serum-free medium, and then purified by biochemical fractionation. ab110258 was judged near homogeneity by SDS-PAGE.
Clonality	Monoclonal

Clone number	12C4F12
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab110258 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	★★★★★ (11)	Use a concentration of 1 µg/ml. Predicted molecular weight: 26 kDa.
ICC/IF	★★★★★ (2)	Use a concentration of 5 - 10 µg/ml. (heat-induced antigen-retrieval improves signal)
Flow Cyt		Use a concentration of 1 µg/ml. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target

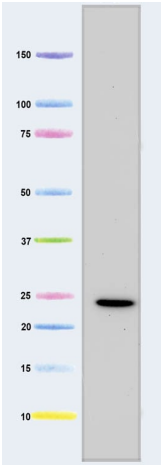
Function Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Subunits 1-3 form the functional core of the enzyme complex. Subunit 2 transfers the electrons from cytochrome c via its binuclear copper A center to the bimetallic center of the catalytic subunit 1.

Involvement in disease Defects in MT-CO2 are a cause of mitochondrial complex IV deficiency (MT-C4D) [MIM:220110]; also known as cytochrome c oxidase deficiency. A disorder of the mitochondrial respiratory chain with heterogeneous clinical manifestations, ranging from isolated myopathy to severe multisystem disease affecting several tissues and organs. Features include hypertrophic cardiomyopathy, hepatomegaly and liver dysfunction, hypotonia, muscle weakness, excercise intolerance, developmental delay, delayed motor development and mental retardation. A subset of patients manifest Leigh syndrome.

Sequence similarities Belongs to the cytochrome c oxidase subunit 2 family.

Cellular localization Mitochondrion inner membrane.

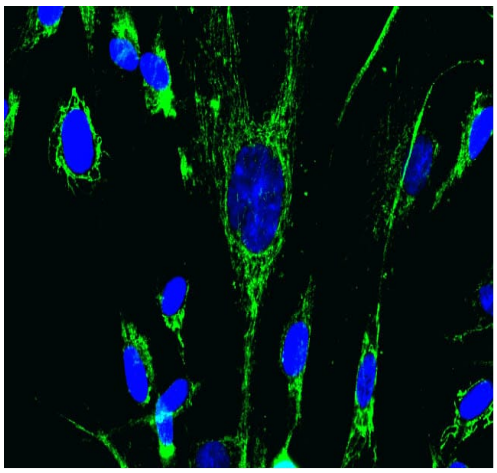
Images



Western blot - Anti-MTCO2 antibody [12C4F12] (ab110258)

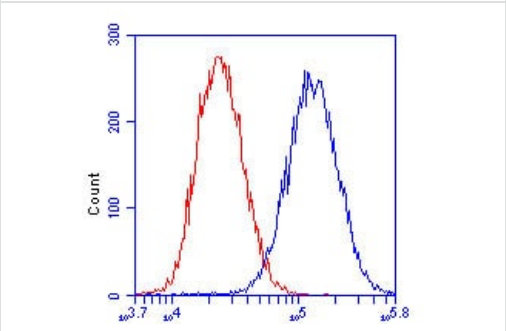
Anti-MTCO2 antibody [12C4F12] (ab110258) at 1 µg/ml + Mitochondrial lysate from human heart tissue at 5 µg

Predicted band size: 26 kDa



Immunocytochemistry/ Immunofluorescence - Anti-MTCO2 antibody [12C4F12] (ab110258)

Immunocytochemistry/Immunofluorescence analysis of human embryonic lung derived fibroblasts (MRC5) labelling Cytochrome C oxidase subunit II with ab110258 at 5 µg/ml. An Alexa Fluor® 488-conjugated goat anti-mouse IgG2a isotype specific secondary antibody was used at 2 µg/ml.



Flow Cytometry - Anti-MTCO2 antibody [12C4F12] (ab110258)

ab110258, at 1 µg/ml, staining Cytochrome C oxidase subunit II in HeLa cells by Flow Cytometry (Blue).

An isotype control antibody, at 1 µg/ml, staining in HeLa cells (Red).

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