


Anti-COX IV antibody [20E8C12] ab14744

★★★★★ [23 Abreviews](#) [310 References](#) [3 Images](#)

Overview

Product name	Anti-COX IV antibody [20E8C12]
Description	Mouse monoclonal [20E8C12] to COX IV
Host species	Mouse
Tested applications	Suitable for: Flow Cyt, WB
Species reactivity	Reacts with: Mouse, Rat, Cow, Human Predicted to work with: Pig 
Immunogen	Tissue, cells or virus corresponding to Cow COX IV.
Positive control	Human, bovine, murine and rat heart mitochondria.
General notes	<p>This antibody makes an effective loading control for mitochondria. COXIV is generally expressed at a consistent high level. However, be aware that many proteins run at the same 16kD size as COXIV - our VDAC1 / Porin antibody makes a good alternative mitochondrial loading control for proteins of this size. Some caution is required when using this antibody as a loading control as COXIV expression can vary under some manipulations. An alternative mitochondrial loading control is Rabbit polyclonal to COX IV antibody (ab16056).</p> <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>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituent: HEPES buffered saline

Purity	IgG fraction
Primary antibody notes	This antibody makes an effective loading control for mitochondria. COXIV is generally expressed at a consistent high level. However, be aware that many proteins run at the same 16kD size as COXIV - our VDAC1 / Porin antibody makes a good alternative mitochondrial loading control for proteins of this size. Some caution is required when using this antibody as a loading control as COXIV expression can vary under some manipulations. An alternative mitochondrial loading control is Rabbit polyclonal to COX IV antibody (ab16056).
Clonality	Monoclonal
Clone number	20E8C12
Isotype	IgG2a
Light chain type	kappa

Applications

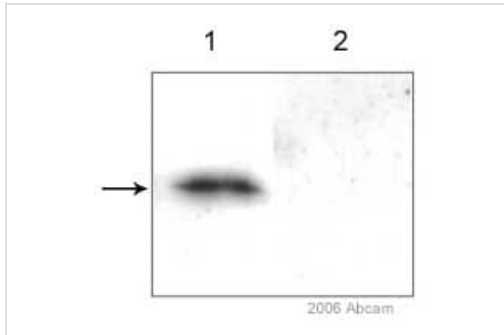
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab14744 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use 0.5µg for 10 ⁶ cells. ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (18)	Use a concentration of 1 µg/ml. Detects a band of approximately 17 kDa.

Target

Function	This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the cytochrome c oxidase IV family.
Cellular localization	Mitochondrion inner membrane.

Images



Western blot - Anti-COX IV antibody [20E8C12] (ab14744)

All lanes : Anti-COX IV antibody [20E8C12] (ab14744) at 1/5000 dilution

Lane 1 : Cytoplasmic fraction mouse NIH/3T3 cell lysate

Lane 2 : Nuclear fraction mouse NIH/3T3 cell lysate

Secondary

All lanes : HRP conjugated goat anti-mouse antibody

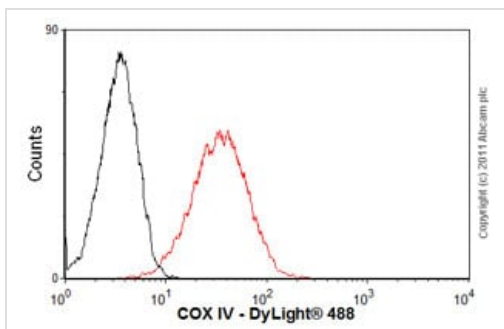
Developed using the ECL technique.

Performed under reducing conditions.

Observed band size: 16 kDa

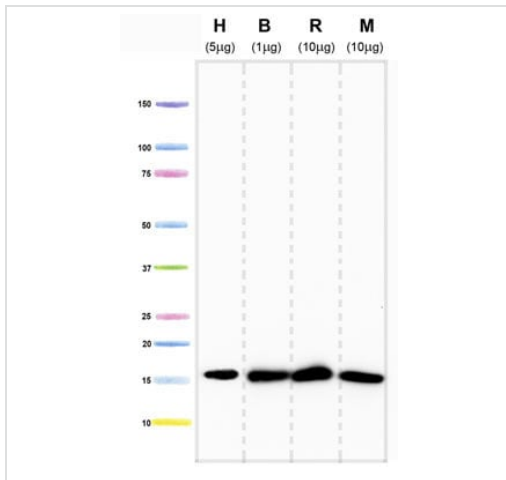
Exposure time: 3 minutes

This image is courtesy of an Abreview submitted by **Camilla Skjerpen** on **4 July 2005**.



Flow Cytometry - Anti-COX IV antibody [20E8C12] (ab14744)

Overlay histogram showing HeLa cells stained with ab14744 (red line). The cells were fixed with 80% methanol (5 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 (ab14744, 0.5µg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1]([ab91353](#), 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed.



Western blot - Anti-COX IV antibody [20E8C12]
(ab14744)

All lanes : Anti-COX IV antibody [20E8C12] (ab14744) at 1 µg/ml

Lane 1 : Isolated mitochondria from human heart at 5 µg

Lane 2 : Isolated mitochondria from bovine heart at 1 µg

Lane 3 : Isolated mitochondria from rat heart at 10 µg

Lane 4 : Isolated mitochondria from murine heart at 10 µg

Observed band size: 16 kDa

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