


## Product datasheet

# Anti-COX IV antibody [20E8C12] ab14744

★★★★★ 23 Abreviews 262 References 3 Images

### Overview

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<b>Product name</b>	Anti-COX IV antibody [20E8C12]
<b>Description</b>	Mouse monoclonal [20E8C12] to COX IV
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Cow, Human <b>Predicted to work with:</b> Pig 
<b>Immunogen</b>	Tissue, cells or virus corresponding to Cow COX IV.
<b>Positive control</b>	Human, bovine, murine and rat heart mitochondria.
<b>General notes</b>	<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 (<a href="#">ab16056</a>).</p> <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>

### Properties

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

<b>Purity</b>	IgG fraction
<b>Primary antibody notes</b>	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 ( <a href="#">ab16056</a> ).
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	20E8C12
<b>Isotype</b>	IgG2a
<b>Light chain type</b>	kappa

## Applications

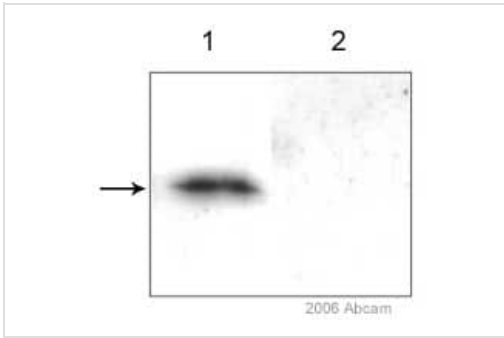
**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab14744 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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

## Target

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

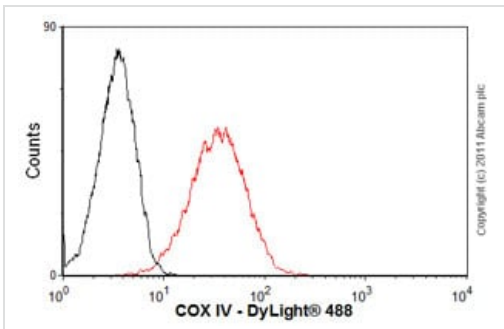
Developed using the ECL technique.

Performed under reducing conditions.

**Observed band size:** 16 kDa

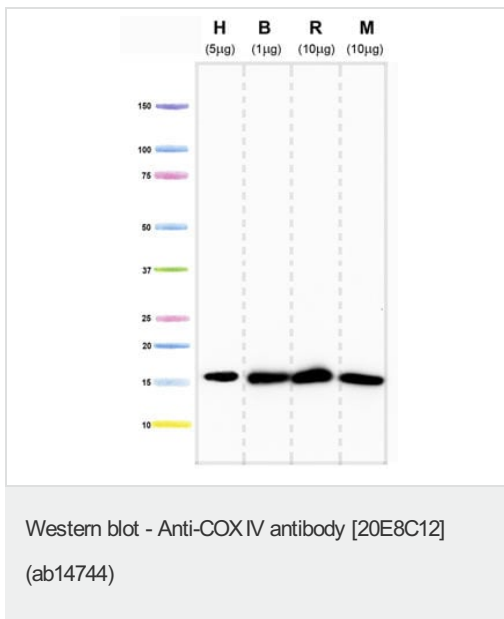
**Exposure time:** 3 minutes

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/1x10<sup>6</sup> 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/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.



**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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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