


Product datasheet

# Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker ab33985

★★★★★ 27 Abreviews 28 References 6 Images

Overview

<b>Product name</b>	Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker
<b>Description</b>	Mouse monoclonal [mAbcam33985] to COX IV - Mitochondrial Marker
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, WB, IHC-Fr, ICC/IF, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Sheep, Cow, Human, Xenopus laevis, Monkey, African green monkey, Chinese hamster, Drosophila C virus  <b>Predicted to work with:</b> Chimpanzee, Zebrafish 
<b>Immunogen</b>	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human COX IV aa 150 to the C-terminus (C terminal) conjugated to Keyhole Limpet Haemocyanin (KLH). The exact sequence is proprietary. (Peptide available as <a href="#">ab16381</a> )
<b>Positive control</b>	WB: Jurkat and HepG2 whole cell lysates and human skeletal muscle, mouse skeletal muscle and cow kidney tissue lysates.
<b>General notes</b>	This antibody clone is manufactured by Abcam.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS  Contains 0.4M arginine
<b>Purity</b>	IgG fraction
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	mAbcam33985
<b>Myeloma</b>	Sp2
<b>Isotype</b>	IgG1

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab33985** 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 1µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
WB	★★★★★	Use a concentration of 1 µg/ml. Detects a band of approximately 15 kDa (predicted molecular weight: 15 kDa).
IHC-Fr	★★★★★	Use at an assay dependent concentration.
ICC/IF	★★★★★	Use a concentration of 1 µg/ml.
IHC-P	★★★★☆	Use at an assay dependent concentration.

## Target

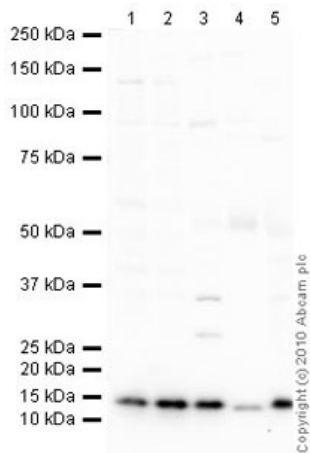
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<b>Function</b>	This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.
<b>Tissue specificity</b>	Ubiquitous.
<b>Sequence similarities</b>	Belongs to the cytochrome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

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## Images

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Western blot - Anti-COX IV antibody

[mAbcam33985] - Mitochondrial Marker (ab33985)

**All lanes** : Anti-COX IV antibody

[mAbcam33985] - Mitochondrial Marker

(ab33985) at 1 µg/ml

**Lane 1** : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

**Lane 2** : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

**Lane 3** : Human skeletal muscle tissue lysate - total protein ([ab29330](#))

**Lane 4** : Skeletal Muscle (Mouse) Tissue Lysate

**Lane 5** : Kidney (Cow) Tissue Lysate ([ab29073](#))

Lysates/proteins at 10 µg per lane.

### Secondary

Goat polyclonal to Mouse IgG - H&L - Pre-

Adsorbed (HRP) at 1/3000 dilution

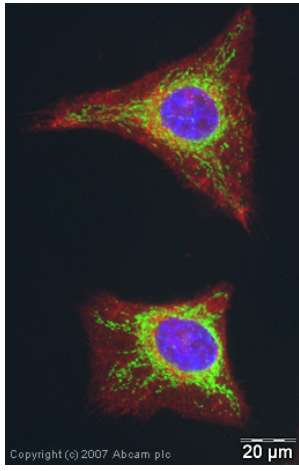
Developed using the ECL technique

Performed under reducing conditions.

**Predicted band size** : 15 kDa

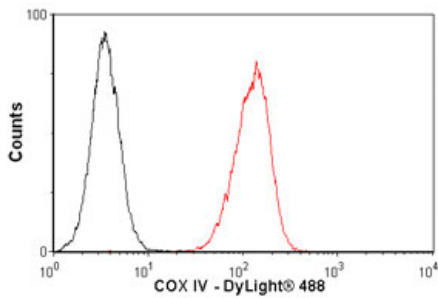
**Observed band size** : 15 kDa

**Exposure time** : 1 minute



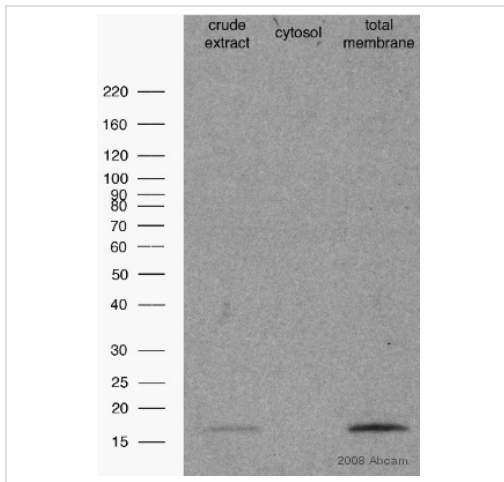
Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)

ICC/IF image of ab33985 stained human HeLa cells. The cells were PFA fixed (10 min), permeabilised in TBS-T (20 min) and incubated with the antibody (ab33985, 1µg/ml) for 1h at room temperature. 1%BSA / 10% normal serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor<sup>®</sup> 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor<sup>®</sup> 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



Flow Cytometry - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)

Overlay histogram showing HeLa cells stained with ab33985 (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 (ab33985, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight<sup>®</sup> 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.



Western blot - Anti-COX IV antibody

[mAbcam33985] - Mitochondrial Marker (ab33985)

This image is courtesy of an Abreview submitted by Dr Anne-Lore Schlaitz

**All lanes :** Anti-COX IV antibody

[mAbcam33985] - Mitochondrial Marker

(ab33985) at 1/1000 dilution

**Lane 1 :** Crude extract prepared from *Xenopus laevis* egg

**Lane 2 :** Cytosol lysate prepared from *Xenopus laevis* egg extract

**Lane 3 :** Total membrane lysate prepared from *Xenopus laevis* egg extract

Lysates/proteins at 15 µg per lane.

### Secondary

HRP conjugated donkey anti-mouse IgG at 1/4000 dilution

Developed using the ECL technique

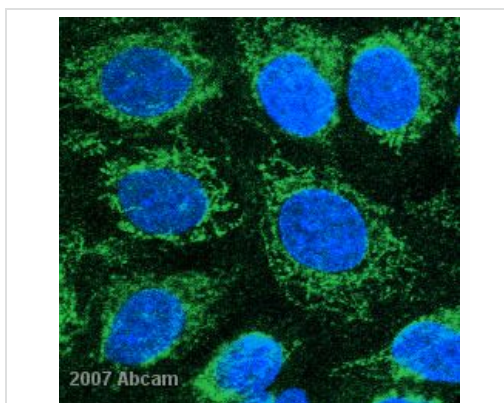
Performed under reducing conditions.

**Predicted band size :** 15 kDa

**Observed band size :** 15 kDa

**Exposure time :** 90 minutes

*This image is courtesy of an Abreview submitted by Dr Anne-Lore Schlaitz*



Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)

This image is courtesy of an anonymous Abreview

ab33985 staining COX IV in human proximal tubular epithelial cells by ICC/IF

(Immunocytochemistry/immunofluorescence).

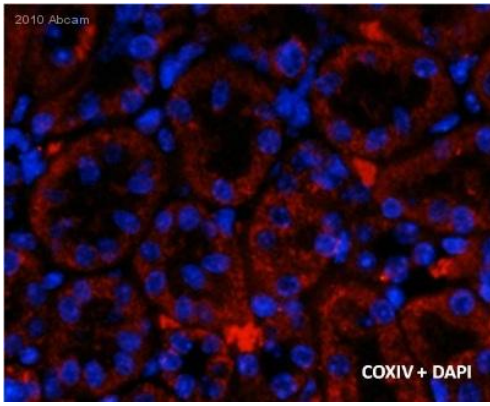
Cells were fixed with paraformaldehyde,

permeabilized with 0.5% Triton X-100 in PBS

and blocked with 3% BSA for 15 minutes at 20°C.

Samples were incubated with primary antibody (1/200 in PBS) for 45 minutes at 20°C.

**ab6785**, a FITC-conjugated goat anti-mouse IgG (H+L) polyclonal was used as the secondary antibody (1/1000).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)  
This image is courtesy of an anonymous Abreview

ab33985 staining COX IV in mouse kidney (tubules) tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde, permeabilized with 0.2% triton X-100 and blocked with 5% serum for 1 hour at 25°C; antigen retrieval was by heat mediation in sodium citrate buffer pH 6. Samples were incubated with primary antibody (1/200 in PBS) for 9 hours at 4°C. An Alexa Fluor® 594-conjugated goat anti-mouse IgG polyclonal (1/500) was used as the secondary antibody. DAPI was used for staining the nucleus.

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