abcam

Product datasheet

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

★★★★★ 26 Abreviews 18 References 6 Images

Overview

Product name	Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker
Description	Mouse monoclonal [mAbcam33985] to COX IV - Mitochondrial Marker
Tested applications	**Suitable for:** Flow Cyt, WB, IHC-Fr, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Sheep, Cow, Human, Xenopus laevis, Monkey, African green monkey, Chinese hamster, Drosophila C virus **Predicted to work with:** Chimpanzee, Zebrafish ⚠
Immunogen	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 ab16381)
Positive control	WB: Jurkat and HepG2 whole cell lysates and human skeletal muscle, mouse skeletal muscle and cow kidney tissue lysates.

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Contains 0.4M arginine
Purity	IgG fraction
Clonality	Monoclonal
Clone number	mAbcam33985
Myeloma	Sp2
Isotype	IgG1

Applications

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 10^6 cells. ab170190 - 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

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.

Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker images

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)

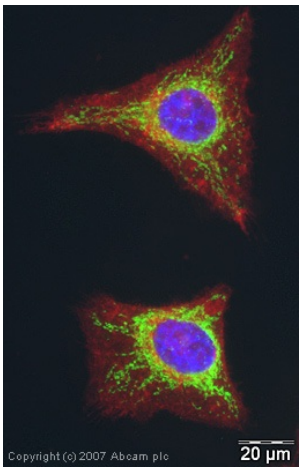
Lysates/proteins at 10 µg per lane.

Secondary
Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution
Developed using the ECL technique

Performed under reducing conditions.

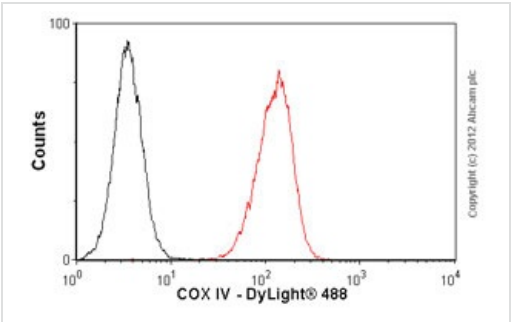
Predicted band size : 15 kDa
Observed band size : 15 kDa

Exposure time : 1 minute



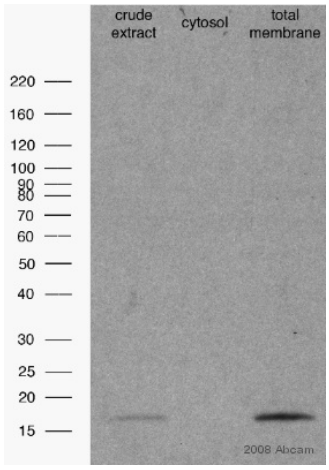
Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)

ICC/IF image of ab33985 stained human HeLa cells. The cells were PFA fixed (10 min), permabilised 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® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 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/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 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

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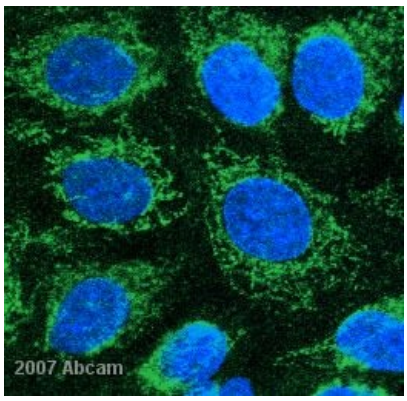
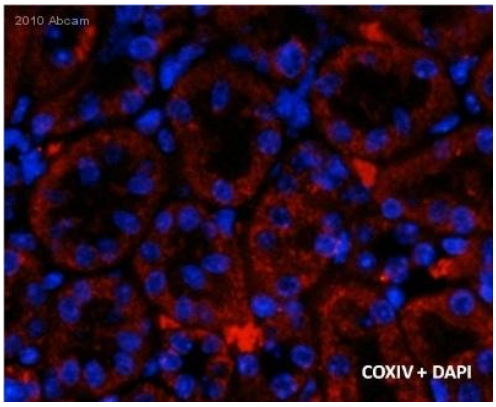


Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [mAbcam33985] - Mitochondrial Marker (ab33985)

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% trition 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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