abcam

Product datasheet

Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control ab202554

Recombinant RabMAb

2 Abreviews 27 References 11 Images

Overview

Product name	Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control
Description	Rabbit monoclonal [EPR9442(ABC)] to COX IV - Mitochondrial Loading Control
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, IP, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal heart lysate; HepG2 whole cell lysate; Mouse and rat heart lysates. IHC-P: Human hepatocellular carcinoma, Human cervix carcinoma, mouse kidney and rat cardiac muscle tissues. ICC/IF: HeLa and HepG2 cells. Flow Cyt (intra): MCF7 cells. IP: Human fetal heart whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR9442(ABC)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab202554 in the following tested applications.

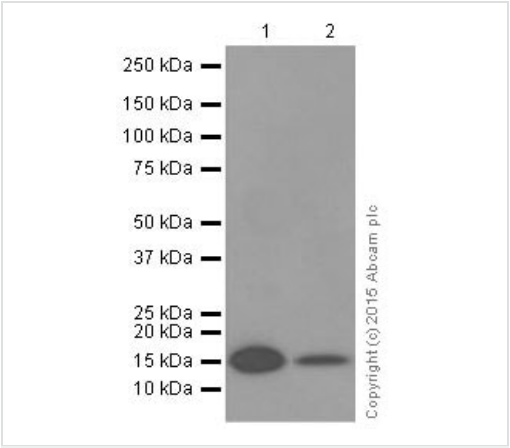
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/1000.
IP		1/20.
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB	★★★★★ **(2)**	1/2000. Detects a band of approximately 17 kDa (predicted molecular weight: 20 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 [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

All lanes : Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554) at 1/2000 dilution

Lane 1 : Human fetal heart lysate

Lane 2 : HepG2 (Human liver hepatocellular carcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

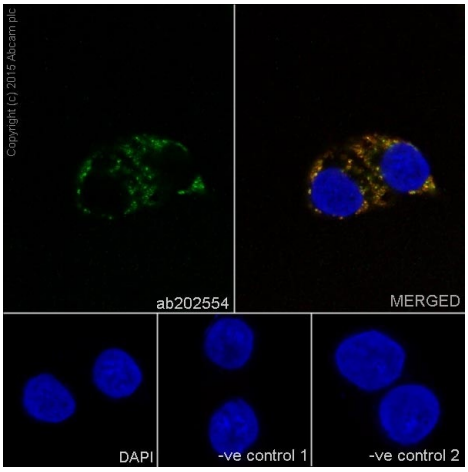
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 20 kDa

Observed band size: 17 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

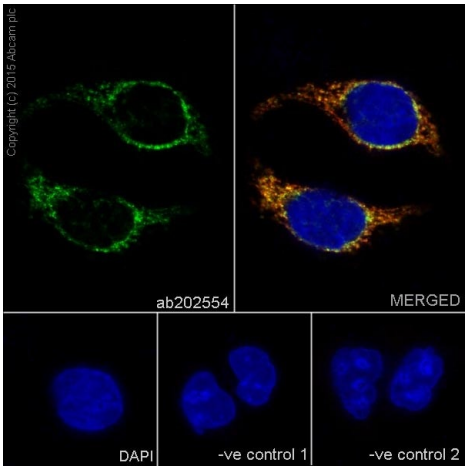
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (Human liver hepatocellular carcinoma) cells labeling COX IV with ab202554 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green).

Cytoplasmic staining on HepG2 cells is observed.

The nuclear counter stain is DAPI (blue).

Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:
-ve control 1: ab202554 at 1/1000 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

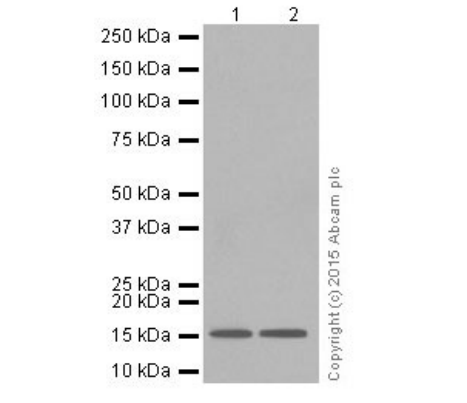
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling COX IV with ab202554 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green).

Cytoplasmic staining on HeLa cells is observed.

The nuclear counter stain is DAPI (blue).

Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:
-ve control 1: ab202554 at 1/1000 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



Western blot - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

All lanes : Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554) at 1/10000 dilution

Lane 1 : Mouse heart lysate
Lane 2 : Rat heart lysate

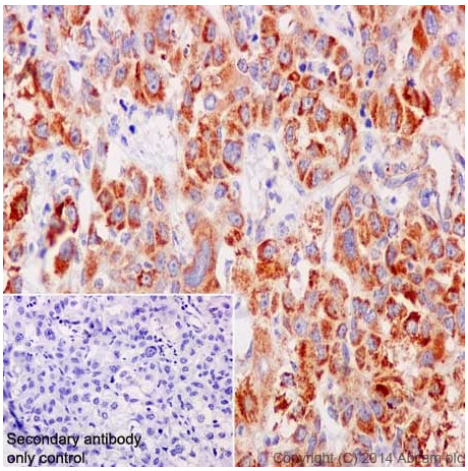
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 20 kDa
Observed band size: 17 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

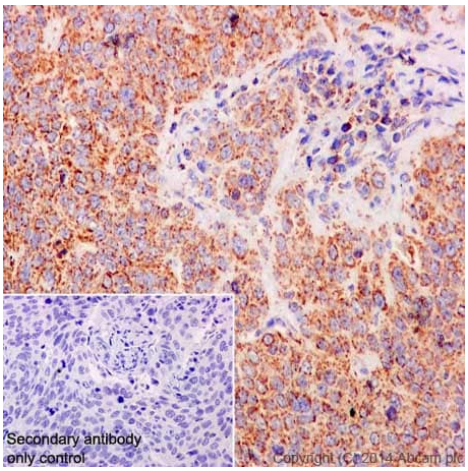
Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labeling COX IV with ab202554 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

Cytoplasmic staining on Human hepatocellular carcinoma tissue is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



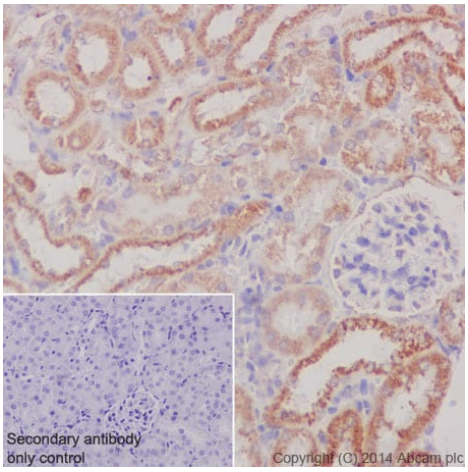
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling COX IV with ab202554 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

Cytoplasmic staining on Human cervix carcinoma tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



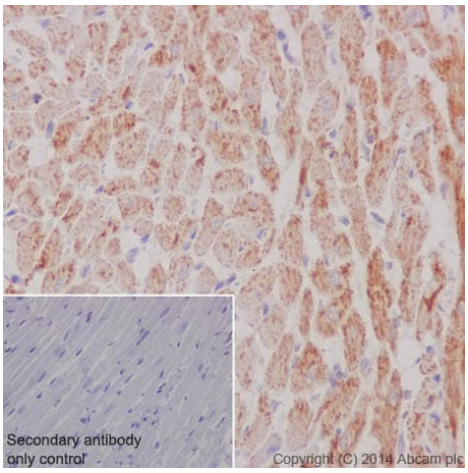
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling COX IV with ab202554 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

Cytoplasmic staining on mouse kidney tissue is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

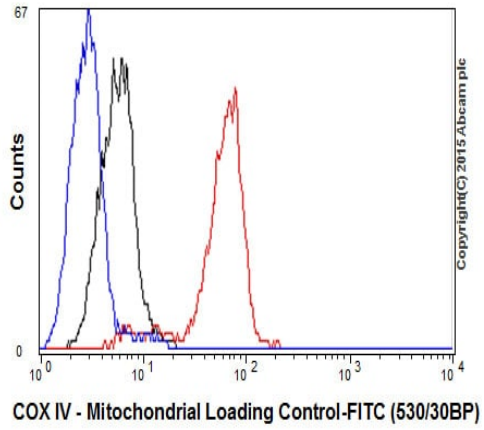
Immunohistochemical analysis of paraffin-embedded Rat cardiac muscle tissue labeling COX IV with ab202554 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

Cytoplasmic staining on Human cervix carcinoma tissue is observed.

Counter stained with Hematoxylin.

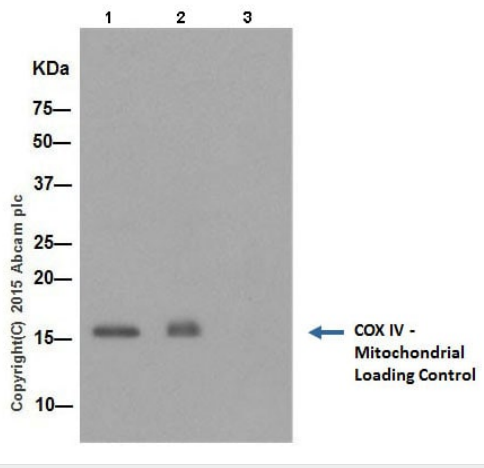
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed MCF7 (Human breast adenocarcinoma cell line) cells labeling COX IVwith ab202554 at 1/20 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**;black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

COX IV was immunoprecipitated from 1mg of Human fetal heart whole cell lysate with ab202554 at 1/20 dilution.

Western blot was performed from the immunoprecipitate using ab202554 at 1/1000 dilution.

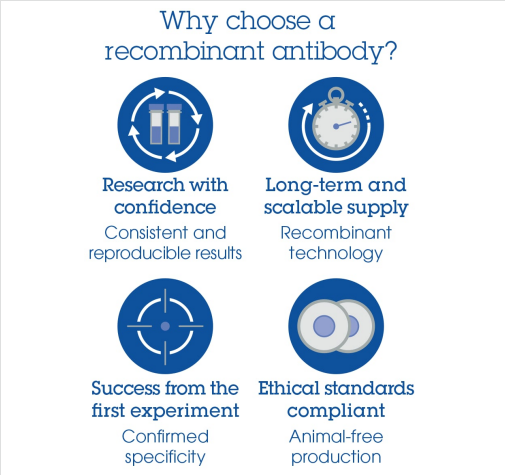
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1/1500 dilution.

Lane 1: Human fetal heart whole cell lysate 10 µg (Input).

Lane 2: ab202554 IP in Human fetal heart whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab202554 in Human fetal heart whole cell lysate.
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.



Anti-COX IV antibody [EPR9442(ABC)] - Mitochondrial Loading Control (ab202554)

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