abcam

Product datasheet

Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free ab231168

Recombinant RabMAb

9 Images

Overview

Product name	Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free
Description	Rabbit monoclonal [EPR9442(ABC)] to COX IV - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
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	ab231168 is the carrier-free version of **ab202554**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR9442(ABC)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab231168 in the following tested applications.

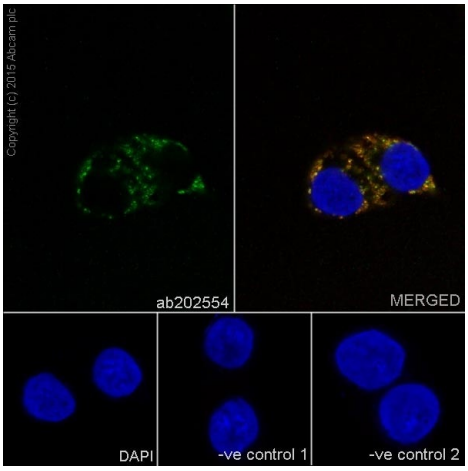
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Detects a band of approximately 17 kDa (predicted molecular weight: 20 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
IP		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.

Images



Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

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).

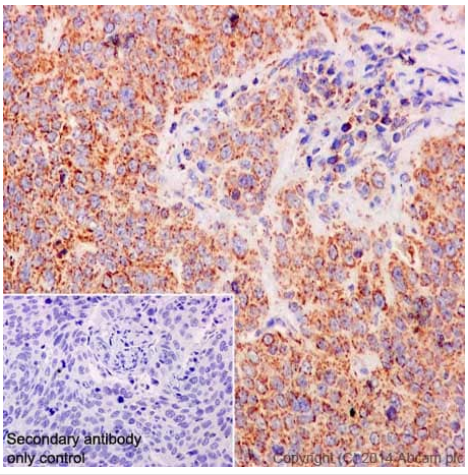
Cytoplasmic staining on HepG2 cells is observed.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

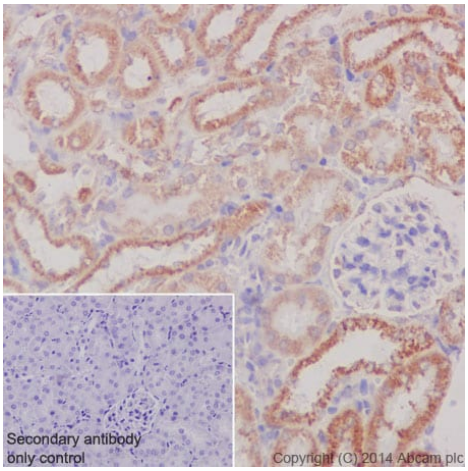
Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling COX IV with **ab202554** at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).

Heat mediated antigen retrieval was performed 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)] - BSA and Azide free (ab231168)

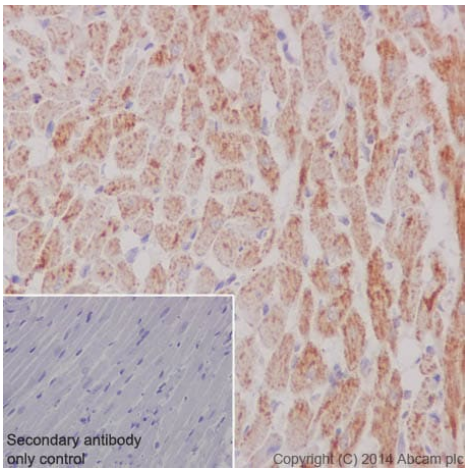
Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labeling COX IV with **ab202554** at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).

Heat mediated antigen retrieval was performed 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)] - BSA and Azide free (ab231168)

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.

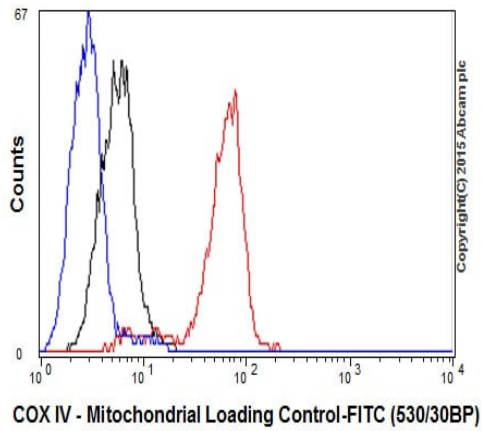
Cytoplasmic staining on Human cervix carcinoma tissue is observed.

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).

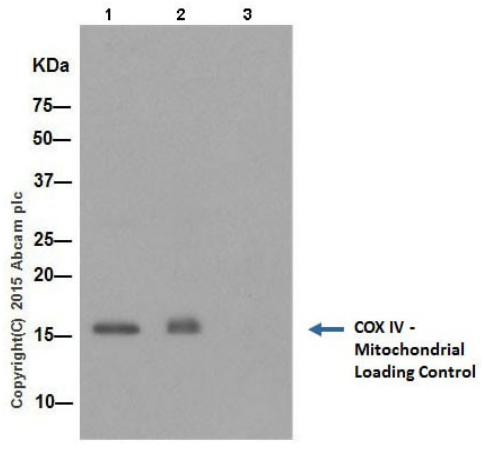
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed MCF7 (Human breast adenocarcinoma cell line) cells labeling COX IV with **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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).



Immunoprecipitation - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

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.

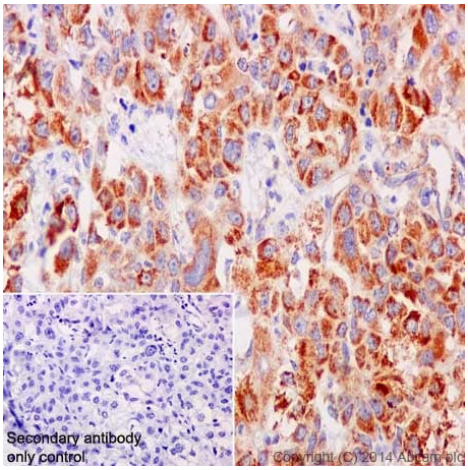
Lane 1: Human fetal heart whole cell lysate 10 µg (Input).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab202554**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

This IHC data was generated using the same anti-COX IV antibody clone, EPR9442(ABC), in a different buffer formulation (cat# **ab202554**).

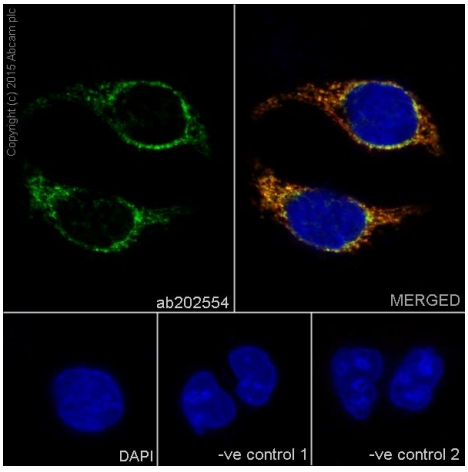
Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labeling COX IV with **ab202554** at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution.

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.

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

This ICC data was generated using the same anti-COX IV antibody clone, EPR9442(ABC), in a different buffer formulation (cat# **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.

Anti-COX IV antibody [EPR9442(ABC)] - BSA and Azide free (ab231168)

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