abcam

ab249613

Anti-CPOX antibody [EPR11926(B)] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR11926(B)
Purification technique	Affinity purification

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information CPOX

Function	Catalyzes the aerobic oxidative decarboxylation of propionate groups of rings A and B of coproporphyrinogen-III to yield the vinyl groups in protoporphyrinogen-IX and participates to the sixth step in the heme biosynthetic pathway.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab249613 is the carrier-free version of ab170945.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CPOX or coproporphyrinogen oxidase catalyzes the oxidation of coproporphyrinogen III to protoporphyrinogen IX an important step in heme biosynthesis. CPOX possesses a molecular mass of approximately 37–40 kDa. Expression occurs primarily in the mitochondria of liver and bone marrow cells. This enzyme plays a role in maintaining the balance of porphyrin intermediates and prevents accumulation that may cause cellular toxicity.
Biological function summary	CPOX converts coproporphyrinogen III into protoporphyrinogen IX playing a role in the heme biosynthetic pathway. As part of the terminal steps in heme production this transformation is important for synthesizing heme an essential component of hemoglobin myoglobin and various cytochromes. CPOX is not part of any larger enzyme complex but interacts with adjacent enzymes in the metabolic pathway to ensure efficient heme synthesis.
Pathways	CPOX functions in the heme biosynthesis pathway. This pathway is vital for the production of heme enabling the synthesis of hemoglobin and electron transport chains. CPOX acts sequentially after coproporphyrinogen III oxidase and before protoporphyrinogen IX oxidase. The enzyme works in concert with proteins such as uroporphyrinogen III synthase (UROS) in earlier steps of the pathway affecting overall heme production efficiency.
Associated diseases and disorders	Mutations or defects in CPOX can lead to hereditary coproporphyria (HCP) a disorder characterized by neurovisceral attacks and photosensitivity. This condition results from the accumulation of porphyrins due to a dysfunctional heme synthesis pathway. Additionally CPOX-related dysfunction can have implications in liver disorders affecting the balance of heme precursors. Improved understanding of CPOX and its interactions with proteins like UROS can provide insight into therapeutic targets for these conditions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

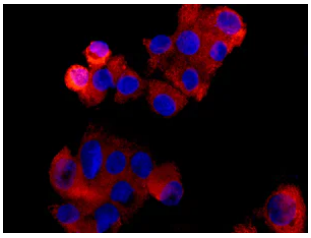
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

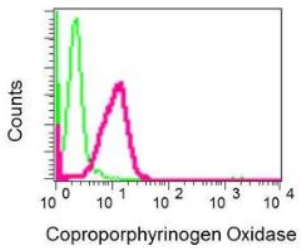
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-CPOX antibody [EPR11926(B)] - BSA and Azide free (ab249613)

CPOX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CPOX antibody

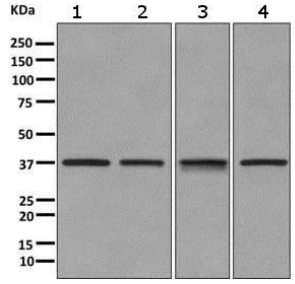
This data was developed using ab170945, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of HepG2 cells labeling CPOX with ab170945 at 1/100 (red). DAPI nuclear staining (blue).



Flow Cytometry (Intracellular) - Anti-CPOX antibody [EPR11926(B)] - BSA and Azide free (ab249613)

CPOX Flow Cytometry (Intracellular) staining using rabbit Anti-CPOX antibody

This data was developed using ab170945, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of K562 cells labeling CPOX with ab170945 at 1/10 dilution (red) and rabbit IgG (negative control) (green).



Western blot - Anti-CPOX antibody [EPR11926(B)] - BSA and Azide free (ab249613)

CPOX Western blot staining using rabbit Anti-CPOX antibody

This data was developed using ab170945, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-CPOX antibody [EPR11926(B)] (ab170945) at 1/10000 dilution

Lane 1:
HepG2 cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
LnCaP cell lysate at 10 µg

Lane 4:
Jurkat cell lysate at 10 µg

Predicted band size: 50 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.