abcam

ab170945

Anti-CPOX antibody [EPR11926(B)]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR11926(B)
Purification technique	Affinity purification Protein A
Concentration	0.104 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/200
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Mouse
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Storage information	Avoid freeze / thaw cycle

Notes

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.

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

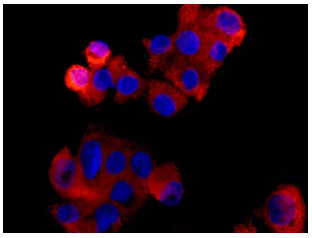
We do not recommend this combination. It is not covered by our product promise.

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.

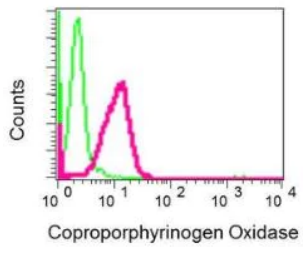
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-CPOX antibody [EPR11926(B)] (ab170945)

CPOX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CPOX antibody

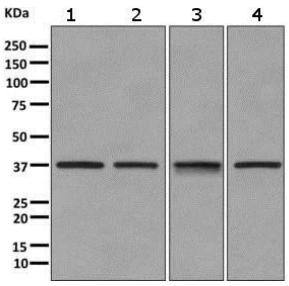
Immunofluorescence analysis of HepG2 cells labeling CPOX with ab170945 at 1/100 (red). DAPI nuclear staining (blue).



Flow Cytometry (Intracellular) - Anti-CPOX antibody [EPR11926(B)] (ab170945)

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

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)] (ab170945)

CPOX Western blot staining using rabbit Anti-CPOX antibody

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'.