abcam

ab249536

Anti-PPOX antibody [EPR10400] - 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	EPR10400
Purification technique	Affinity purification

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PPOX

Function	Catalyzes the 6-electron oxidation of protoporphyrinogen-IX to form protoporphyrin-IX.

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

ab249536 is the carrier-free version of ab170412.

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	PPOX also known as protoporphyrinogen oxidase is an important enzyme in heme biosynthesis. It catalyzes the oxidation of protoporphyrinogen IX to protoporphyrin IX. The mass of PPOX is about 50 kDa and it is expressed in the mitochondria of cells across various tissues including the liver and bone marrow. PPOX's activity is important for producing heme which is an important component of hemoglobin.
Biological function summary	The enzyme PPOX contributes to heme production working within the mitochondrial membrane. It is part of the heme biosynthetic pathway and functions in converting protoporphyrinogen IX the last precursor to heme. This enzymatic action is important for producing heme groups required for hemoglobin myoglobin cytochromes and other heme-containing proteins. Without PPOX cells could not efficiently synthesize these important proteins.
Pathways	PPOX plays a role in the protoporphyrin IX biosynthesis pathway which forms part of the larger heme biosynthesis pathway. It interacts with other enzymes like coproporphyrinogen oxidase (CPOX) and ferrochelatase (FECH) which work sequentially in the pathway. These interactions ensure the completed heme molecule for functions like oxygen transport and electron transfer.
Associated diseases and disorders	Defects in PPOX are linked to variegate porphyria a type of porphyria causing skin and neurological symptoms. Mutations in the PPOX gene reduce enzyme activity leading to the accumulation of protoporphyrinogen IX. This disease connects PPOX with other enzymes in the heme pathway such as hydroxymethylbilane synthase (HMBS) which is involved in acute intermittent porphyria. Proper understanding of PPOX and its pathway interactions helps in managing and diagnosing such 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

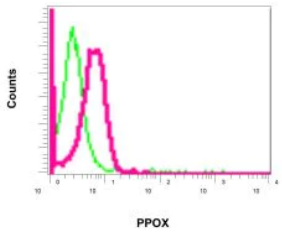
We do not recommend this combination. It is not covered by our product promise.

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.

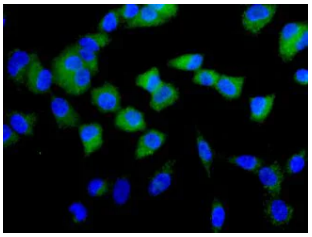
3 product images



Flow Cytometry (Intracellular) - Anti-PPOX antibody [EPR10400] - BSA and Azide free (ab249536)

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

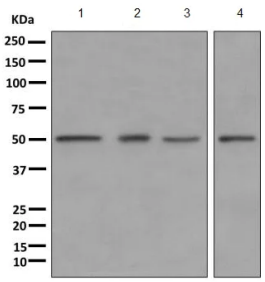
This data was developed using ab170412, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized HT-1080 cells using ab170412 (red) at a 1/100 dilution or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-PPOX antibody [EPR10400] - BSA and Azide free (ab249536)

PPOX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPOX antibody

This data was developed using ab170412, the same antibody clone in a different buffer formulation.
Immunocytochemistry/ Immunofluorescence analysis of A549 cells labeling PPOX with ab170412 at a 1/100 dilution (green). DAPI nuclear staining (blue).



Western blot - Anti-PPOX antibody [EPR10400] - BSA and Azide free (ab249536)

PPOX Western blot staining using rabbit Anti-PPOX antibody

This data was developed using ab170412, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-PPOX antibody [EPR10400] (ab170412) at 1/1000 dilution

Lane 1:
A549 cell lysate at 10 µg

Lane 2:
HepG2 cell lysate at 10 µg

Lane 3:
HT-1080 cell lysate at 10 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Predicted band size: 51 kDa

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