abcam

# ab170412

# Anti-PPOX antibody [EPR10400]

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** | EPR10400 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.992 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

### IP

**Not recommended**

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

### WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/1000 - 1/10000 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/250 |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/500 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### 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** | Conditional Ambient |
| **Appropriate short-term storage duration** | Up to 12 months |
| **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** | 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.

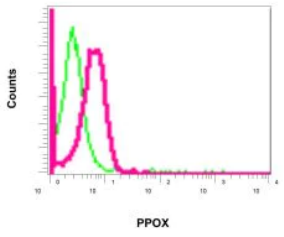
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We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

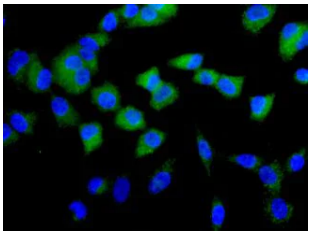
## 3 product images




### Flow Cytometry (Intracellular) - Anti-PPOX antibody [EPR10400] (ab170412)

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

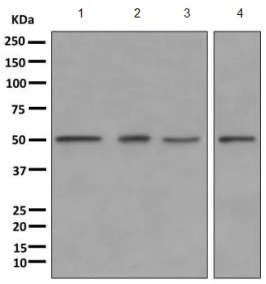
Intracellular flow cytometric analysis of permeabilized HT-1080 cells usingab170412 (red) at a 1/100 dilutionor a rabbit IgG (negative) (green).



### Immunocytochemistry/ Immunofluorescence - Anti-PPOX antibody [EPR10400] (ab170412)

PPOX Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PPOX antibody

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] (ab170412)

PPOX Western blot staining using rabbit Anti-PPOX antibody

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

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