# abcam

# Product datasheet

# Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] ab128953



Recombinant

RabMAb

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#### Overview

Product name Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115]

**Description** Rabbit monoclonal [EPR8115] to Peroxiredoxin 3/PRDX3

Host species Rabbit

Tested applications Suitable for: Flow Cyt (Intra), WB, IP, IHC-P

Species reactivity Reacts with: Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HeLa, 293T, MCF7 and A431 cell lysates. IHC-P: Human endometrium adenocarcinoma

and Human liver tissues. Flow Cyt (intra): MCF7 cells IP: HeLa.

**General notes**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 production

For more information see here.

Our RabMAb $^{\otimes}$  technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb^{\otimes} patents**.

 $\label{eq:mouse_preliminary} \text{Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with}$ 

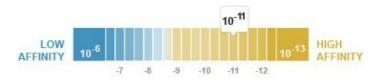
these species. Please contact us for more information.

# **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

**Dissociation constant (K<sub>D</sub>)**  $K_D = 1.02 \times 10^{-11} M$ 



# Learn more about K<sub>D</sub>

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

Purity Protein A purified

Clone number Monoclonal EPR8115

**Isotype** IgG

# **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab128953 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)		1/1000.  ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (2)	1/10000 - 1/50000. Detects a band of approximately 26 kDa (predicted molecular weight: 28 kDa).
IP		1/100 - 1/500.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

#### **Target**

**Function** Involved in redox regulation of the cell. Protects radical-sensitive enzymes from oxidative damage

by a radical-generating system. Acts synergistically with MAP3K13 to regulate the activation of

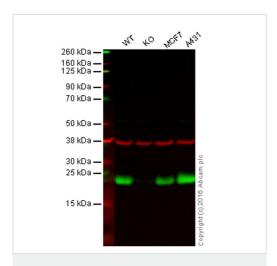
NF-kappa-B in the cytosol.

**Sequence similarities** Belongs to the ahpC/TSA family.

Contains 1 thioredoxin domain.

Cellular localization Mitochondrion.

# **Images**



Western blot - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)



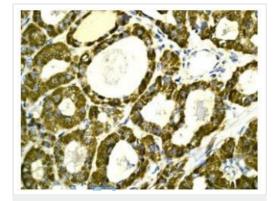
Lane 2: Peroxiredoxin 3/PRDX3 knockout HAP1 cell lysate (20 µg)

Lane 3: MCF7 cell lysate (20 µg)

Lane 4: A431 cell lysate (20 µg)

**Lanes 1 - 4**: Merged signal (red and green). Green - ab128953 observed at 24 kDa. Red - loading control, <u>ab8245</u>, observed at 37 kDa.

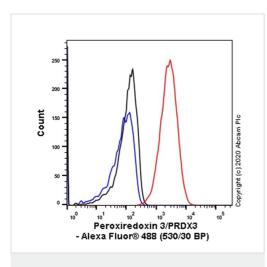
ab128953 was shown to specifically react with Peroxiredoxin 3/PRDX3 in wild-type HAP1 cells. No band was observed when Peroxiredoxin 3/PRDX3 knockout samples were examined. Wild-type and Peroxiredoxin 3/PRDX3 knockout samples were subjected to SDS-PAGE. ab128953 and <a href="mailto:ab8245">ab8245</a> (loading control to GAPDH) were both diluted 1/10,000 and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (<a href="mailto:ab216773">ab216773</a>) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (<a href="mailto:ab216776">ab216776</a>) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)

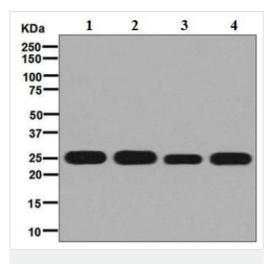
ab128953, at a 1/250 dilution, staining Peroxiredoxin 3/PRDX3 in paraffin embedded Human endometrium adenocarcinoma tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)

Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Peroxiredoxin 3/PRDX3 with purified ab128953 at 1/1000 dilution (1  $\mu$ g/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit lgG (Alexa Fluor 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal lgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)

**All lanes :** Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953) at 1/10000 dilution

Lane 1: HeLa cell lysate

Lane 2: 293T (Human embryonic kidney epithelial cell) cell lysate

Lane 3 : MCF7 cell lysate

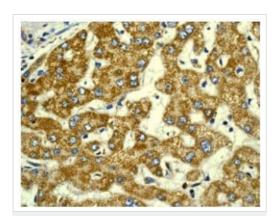
Lane 4 : A431 cell lysate

Lysates/proteins at 10 µg per lane.

# **Secondary**

All lanes: HRP labelled goat anti-rabbit at 1/2000 dilution

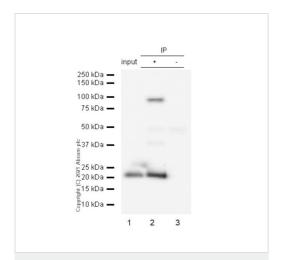
Predicted band size: 28 kDa Observed band size: 26 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)

ab128953, at a 1/250 dilution, staining Peroxiredoxin 3/PRDX3 in paraffin embedded Human liver tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Peroxiredoxin 3/PRDX3 antibody [EPR8115] (ab128953)

Peroxiredoxin 3/PRDX3 was immunoprecipitated from 0.35 mg HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10  $\mu$ g with 128953 at 1/50 dilution (2 $\mu$ g). VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.

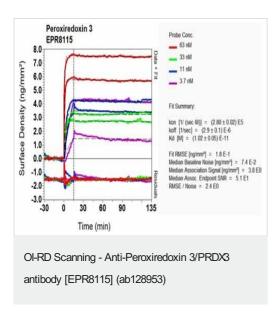
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10  $\mu g$ 

Lane 2: ab128953 IP in HeLa whole cell lysate

Lane 3: Rabbit monoclonal lgG ( $\underline{ab172730}$ ) instead of ab128953 in HeLa whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

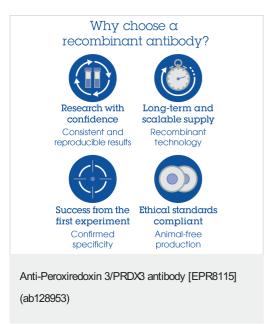
Upper bands could be ubiquitinated forms (PMID:21795677)



Equilibrium disassociation constant ( $K_D$ )

Learn more about K<sub>D</sub>

# Click here to learn more about K<sub>D</sub>



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