

Product datasheet

Anti-Peroxiredoxin 5 antibody [EPR14529(B)] ab180587

KO VALIDATED Recombinant RabMAb[®]

[6 References](#) [10 Images](#)

Overview

Product name	Anti-Peroxiredoxin 5 antibody [EPR14529(B)]
Description	Rabbit monoclonal [EPR14529(B)] to Peroxiredoxin 5
Host species	Rabbit
Specificity	The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
Tested applications	Suitable for: WB, IHC-P, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa, HepG2 and A549 cell line lysates; Human kidney tissue; Jurkat cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14529(B)
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab180587 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
WB		1/1000 - 1/10000. Detects a band of approximately 17 kDa (predicted molecular weight: 22 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat. See IHC antigen retrieval protocols
IP		1/50.

Target

Function

Reduces hydrogen peroxide and alkyl hydroperoxides with reducing equivalents provided through the thioredoxin system. Involved in intracellular redox signaling.

Tissue specificity

Widely expressed.

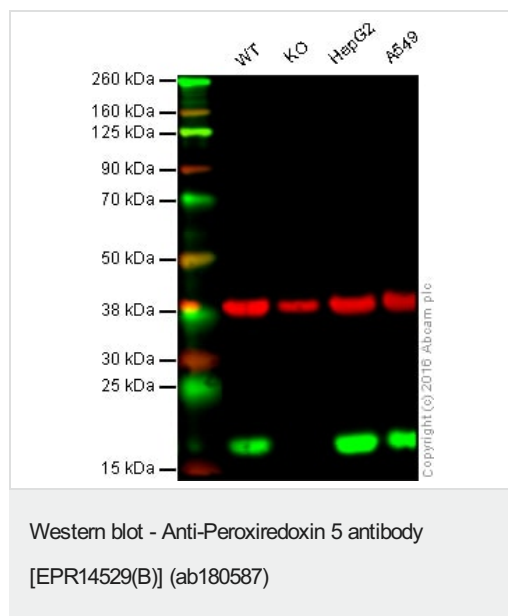
Sequence similarities

Belongs to the peroxiredoxin 2 family.
Contains 1 thioredoxin domain.

Cellular localization

Mitochondrion. Cytoplasm. Peroxisome.

Images



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: PRDX5 knockout HAP1 whole cell lysate (20 µg)

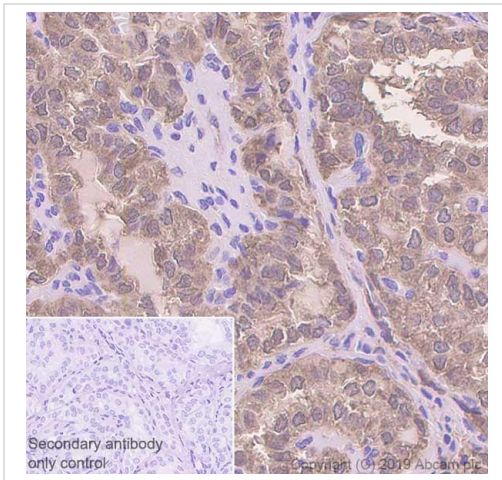
Lane 3: HepG2 whole cell lysate (20 µg)

Lane 4: A549 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab180587 observed at 17 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

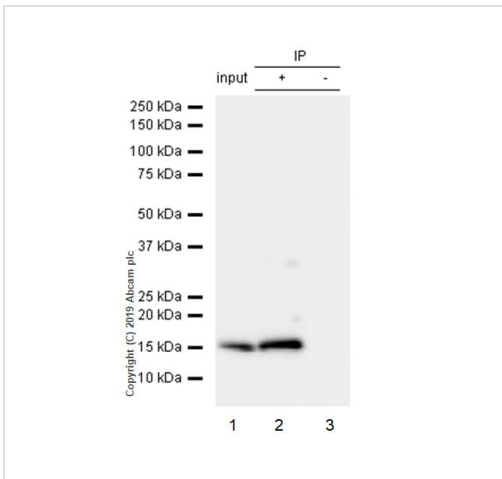
ab180587 was shown to specifically react with PRDX5 when PRDX5 knockout samples were used. Wild-type and PRDX5 knockout samples were subjected to SDS-PAGE. Ab180587 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1000 dilution and 1/10000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW

Goat anti Mouse secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue sections labeling Peroxiredoxin 5 with purified ab180587 at 1:500 dilution (1.18 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 1 (pH 6.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)



Immunoprecipitation - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

ab180587 (Purified) at 1:30 dilution (2 µg) immunoprecipitating Peroxiredoxin 5 in HeLa whole cell lysate.

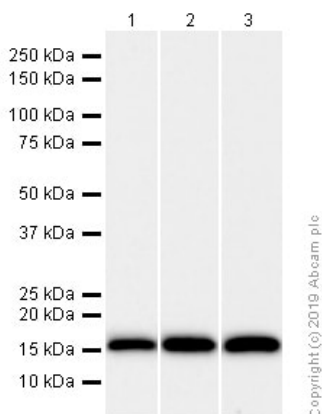
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg

Lane 2 (+): ab180587 & HeLa whole cell lysate

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab180587 in HeLa whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1:1000 dilution.

Blocking and diluting buffer: 5% NFDMM/TBST.



Western blot - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

All lanes : Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587) at 1/10000 dilution (Purified)

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2 : Human brain lysates

Lane 3 : Rat brain lysates

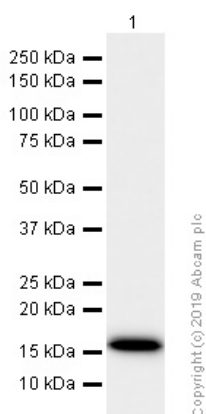
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 22 kDa

Observed band size: 17 kDa



Western blot - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

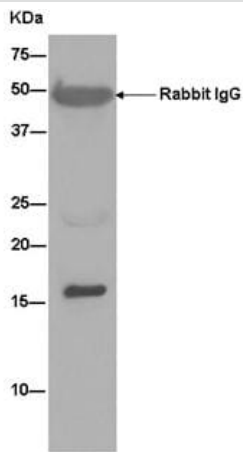
Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587) at 1/5000 dilution (Purified) + Mouse brain lysates at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 22 kDa

Observed band size: 17 kDa



Immunoprecipitation - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

Immunoprecipitation analysis of Peroxiredoxin 5 pulled down from HeLa cell lysates using ab180587 at 1/50 dilution.

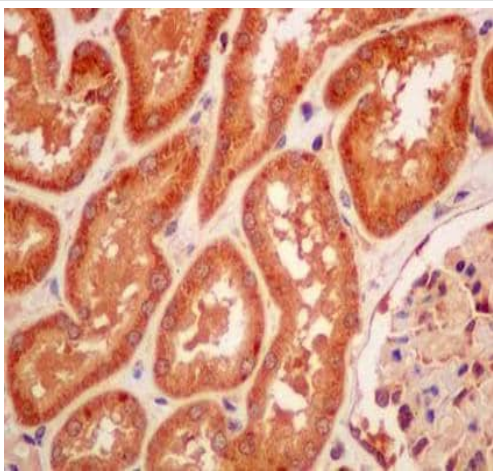
Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587) at 1/1000 dilution (Unpurified) + HeLa cell immunoprecipitated with ab180587 at 1/50.

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Observed band size: 17 kDa

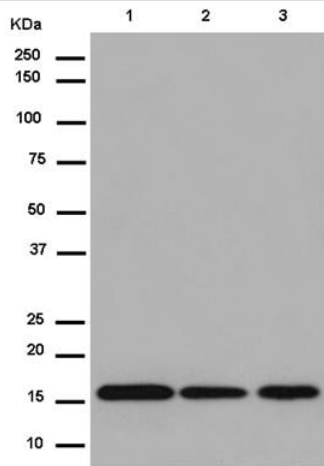
Additional bands at: 50 kDa (possible IgG)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

Immunohistochemical analysis of paraffin embedded Human kidney tissue labeling Peroxiredoxin 5 with unpurified ab180587 at 1/250.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

All lanes : Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587) at 1/5000 dilution (Unpurified)

Lane 1 : HepG2 cell line lysate

Lane 2 : Jurkat cell line lysate

Lane 3 : A549 cell line lysate

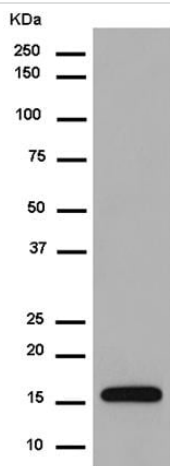
Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa

Observed band size: 17 kDa



Western blot - Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587)

Anti-Peroxiredoxin 5 antibody [EPR14529(B)] (ab180587) at 1/20000 dilution (Unpurified) + HeLa cell line lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 22 kDa

Observed band size: 17 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Peroxiredoxin 5 antibody [EPR14529(B)]
(ab180587)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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