abcam

Product datasheet

# Anti-Peroxiredoxin 6 antibody ab73350

KO VALIDATED

2 References 8 Images

## Overview

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|---|---|
| **Product name** | Anti-Peroxiredoxin 6 antibody |
| **Description** | Rabbit polyclonal to Peroxiredoxin 6 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** IHC-P, WB, ICC/IF, IP |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human<br>**Predicted to work with:** Chicken, Cow, Pig, Xenopus laevis, Non human primates |
| **Immunogen** | Synthetic peptide conjugated to KLH derived from within residues 200 to the C-terminus of Human Peroxiredoxin 6.Read Abcam's proprietary immunogen policy(Peptide available as **ab73681**.) |
| **Positive control** | Recombinant human Peroxiredoxin 6 protein (**ab87631**) can be used as a positive control in WB. This antibody gave a positive signal in the following lysates: Testis (Rat) Tissue, Lung (Rat) Tissue, Liver (Mouse) Tissue, Ramos Whole Cell. HAP1 cells. HAP1 cell lysate. |
| **General notes** | The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

## Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| **Storage buffer** | pH: 7.40<br>Preservative: 0.02% Sodium azide<br>Constituent: PBS<br><br>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising |

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| | agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help. |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab73350 in the following tested applications.

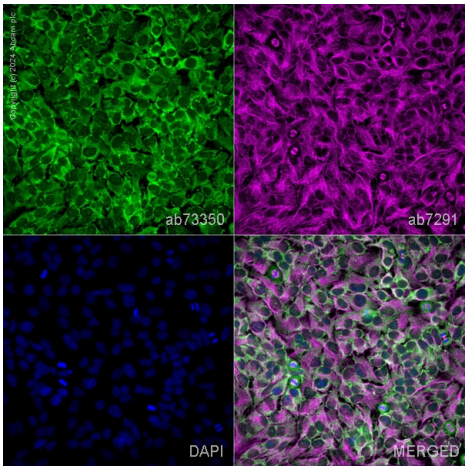
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| **IHC-P** | | Use a concentration of 1 µg/ml. |
| **WB** | | Use a concentration of 1 µg/ml. Detects a band of approximately 25 kDa (predicted molecular weight: 25 kDa). |
| **ICC/IF** | | Use a concentration of 1 µg/ml. |
| **IP** | | Use a concentration of 5 µg/ml. |

## Target

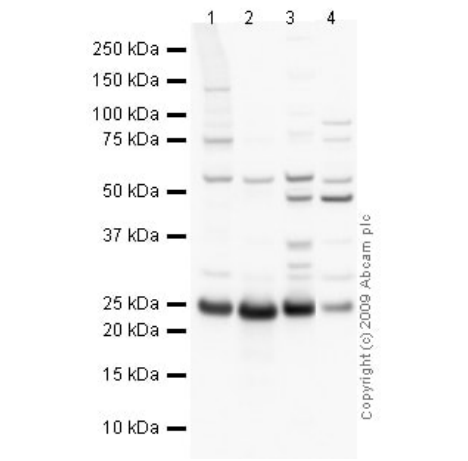
| | |
|---|---|
| **Function** | Involved in redox regulation of the cell. Can reduce H(2)O(2) and short chain organic, fatty acid, and phospholipid hydroperoxides. May play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury. |
| **Sequence similarities** | Belongs to the ahpC/TSA family. Rehydrin subfamily.<br>Contains 1 thioredoxin domain. |
| **Cellular localization** | Cytoplasm. Lysosome. Cytoplasmic vesicle. Also found in lung secretory organelles. |

## Images




Immunocytochemistry/ Immunofluorescence - Anti-Peroxiredoxin 6 antibody (ab73350)

ab73350 staining Peroxiredoxin 6 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab73350 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue). Also suitable in cells fixed with 4% paraformaldehyde (10 min).Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.




Western blot - Anti-Peroxiredoxin 6 antibody (ab73350)

**All lanes :** Anti-Peroxiredoxin 6 antibody (ab73350) at 1 µg/ml

**Lane 1 :** Testis (Rat) Tissue Lysate
**Lane 2 :** Lung (Rat) Tissue Lysate
**Lane 3 :** Liver (Mouse) Tissue Lysate
**Lane 4 :** Ramos (Human Burkitt's lymphoma cell line) Whole Cell Lysate

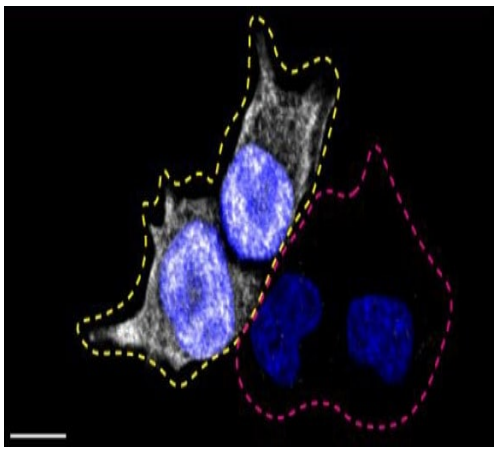
Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

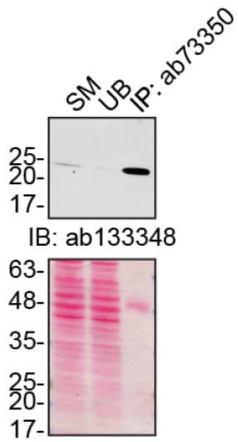
**Predicted band size:** 25 kDa
**Observed band size:** 25 kDa
**Additional bands at:** 48 kDa, 55 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 2 minutes



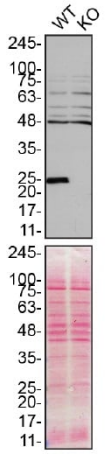
Immunocytochemistry/ Immunofluorescence - Anti-Peroxiredoxin 6 antibody (ab73350)

ab73350 was shown to react with PRDX6 in wild-type HAP1 cells in Immunocytochemistry with loss of signal observed in a PRDX6 knockout cell line. Wild-type and knockout cells were mixed and pelleted at a 1:1 ratio on coverslips. The cells were fixed with 4% paraformaldehyde (15 min) then permeabilized with 0.1% Triton X-100 (10min) and then blocked with 1/1000. The cells were then incubated with ab73350 at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat anti-rabbit secondary antibody to (Alexa Fluor® 555) at 0.5 µg/ml. Acquisition of the green (wild-type), red (antibody staining) and far-red (knockout) channels was performed. Representative grayscale images of the red channel are shown. Wild-type and knockout cells are outlined with yellow and magenta dashed line, respectively. Schematic representation of the mosaic strategy used is shown on the bottom-right panel. Image was acquired with a Zeiss(LSM-880). These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.




Immunoprecipitation - Anti-Peroxiredoxin 6 antibody (ab73350)

Immunoprecipitation of PRDX6 in HAP1 cells. Lysates were prepared and immunoprecipitation was performed using 2.0µg of ab73350 pre-coupled to prot.A-Sepharose beads. Samples were washed and processed for western blot with **ab133348** at 1/1000. SM=10% starting material; UB=10% unbound fraction; IP=immunoprecipitate. These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.




Western blot - Anti-Peroxiredoxin 6 antibody (ab73350)

**All lanes :** Anti-Peroxiredoxin 6 antibody (ab73350) at 1/400 dilution

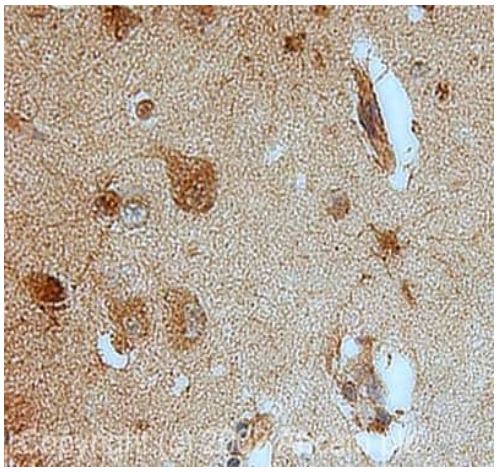
**Lane 1 :** Wild-type HAP1 cell lysate
**Lane 2 :** PRDX6 knockout HAP1 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

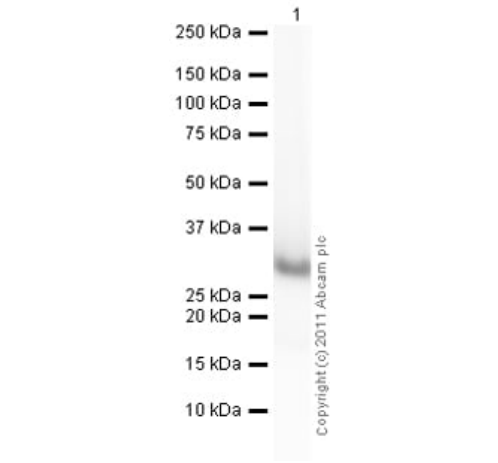
**Predicted band size:** 25 kDa

ab73350 was shown to react with PRDX6 in wild-type HAP1 cells in Western blot with loss of signal observed in a PRDX6 knockout cell line. Wild-type HAP1 and PRDX6 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab73350 overnight at 4 °C at a 1/400 dilution. Blots were incubated with goat anti-rabbit HRP secondary antibodies at 0.2ug/mL before imaging. This data was kindly provided by the YCharOS Inc., an open science company with the mission of characterizing every commercially available antibody reagent. Abcam are working with YCharOS to support their mission of antibody characterisation using knockout cell lines.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Peroxiredoxin 6 antibody (ab73350)

IHC image of Peroxiredoxin 6 staining in Human Hippocampus FFPE section, performed on a BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab73350, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX




Western blot - Anti-Peroxiredoxin 6 antibody (ab73350)

Anti-Peroxiredoxin 6 antibody (ab73350) at 1 µg/ml + Recombinant human Peroxiredoxin 6 protein (**ab87631**) at 0.01 µg

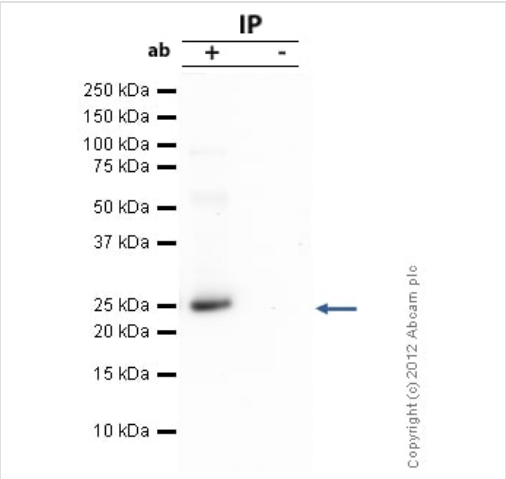
**Secondary**
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 25 kDa

**Exposure time:** 30 seconds




Immunoprecipitation - Anti-Peroxiredoxin 6 antibody (ab73350)

Peroxiredoxin 6 was immunoprecipitated using 0.5mg Rat Testis tissue lysate, 5µg of Rabbit polyclonal to Peroxiredoxin 6 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, Rat Testis tissue lysate lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70$^{o}$C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab73350.
Secondary: Clean-Blot IP Detection Reagent (HRP) at 1/500 dilution.
Band: 25KDa: Peroxiredoxin 6



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