# Anti-Peroxiredoxin 1/PAG antibody ab15571

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customer reviews and Q&As.

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. Avoid freeze / thaw cycle.

Storage buffer
Preservative: 0.05% Sodium azide

Purity
Whole antiserum

Clonality
Polyclonal

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab15571 in the following tested applications.

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

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<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>1/200.</td>
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<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
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<td>WB</td>
<td>★★★★☆☆☆</td>
<td>1/1000. Detects a band of approximately 20 kDa (predicted molecular weight: 22 kDa).</td>
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Target

Function
Involved in redox regulation of the cell. Reduces peroxides with reducing equivalents provided through the thioredoxin system but not from glutaredoxin. May play an important role in eliminating peroxides generated during metabolism. Might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H(2)O(2). Reduces an intramolecular disulfide bond in GDPD5 that gates the ability to GDPD5 to drive postmitotic motor neuron differentiation.

Sequence similarities
Belongs to the ahpC/TSA family.
Contains 1 thioredoxin domain.

Post-translational modifications
Phosphorylated on Thr-90 during the M-phase, which leads to a more than 80% decrease in enzymatic activity.

Cellular localization
Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images
**Western blot - Anti-Peroxiredoxin 1/PAG antibody (ab15571)**

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

**Lane 2:** Peroxiredoxin 1/PAG knockout HAP1 cell lysate (20 µg)

**Lane 3:** A431 cell lysate (20 µg)

**Lane 4:** Jurkat cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab15571 observed at 23 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab15571 was shown to recognize Peroxiredoxin 1/PAG when Peroxiredoxin 1/PAG knockout samples were used, along with additional cross-reactive bands. Wild-type and Peroxiredoxin 1/PAG knockout samples were subjected to SDS-PAGE. ab15571 and ab8245 (loading control to GAPDH) were diluted to 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

**Immunocytochemistry/Immunofluorescence - Anti-Peroxiredoxin 1/PAG antibody (ab15571)**

**ICC/IF image of ab15571 stained HeLa cells.** The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab15571, 1/200 dilution) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Peroxiredoxin 1/PAG antibody (ab15571)

IHC image of ab15571 staining in human liver carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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 ab15571, 1/100 dilution, 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.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

Western blot - Anti-Peroxiredoxin 1/PAG antibody (ab15571)

All lanes: Anti-Peroxiredoxin 1/PAG antibody (ab15571) at 1/1000 dilution

Lane 1: Cell line indicated at 25 µg

Secondary

All lanes: HRP-conjugated Goat anti-rabbit at 1/20000 dilution

Predicted band size: 22 kDa

Observed band size: 20 kDa

why is the actual band size different from the predicted?

Additional bands at: 25 kDa. We are unsure as to the identity of these extra bands.

Western blot analysis of Peroxiredoxin 1/PAG was performed by loading 25µg of various whole cell lysates onto a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked with 5% Milk/TBST for at least 1 hour. Membranes were probed with ab15571 overnight at 4°C on a rocking platform. Membranes were washed in TBS-0.1%Tween 20 and probed with a goat anti-rabbit-HRP secondary antibody for at least one hour. Membranes were washed and chemiluminescent detection performed.

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