abcam

Product datasheet

Anti-Peroxiredoxin 1/PAG antibody ab15571

敲除验证

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概述

产品名称	Anti-Peroxiredoxin 1/PAG抗体
描述	**兔多克隆抗体**to Peroxiredoxin 1/PAG
宿主	Rabbit
特异性	This antibody detects Peroxiredoxin 1 protein in human samples. The antibody is specific for Peroxiredoxin 1/PAG and shows no cross reactivity with other Prx isoforms.
经测试应用	**适用于:** ICC/IF, IHC-P, WB
种属反应性	**与反应:** Human, African green monkey **预测可用于:** Cow, Chinese hamster
免疫原	Synthetic peptide corresponding to Human Peroxiredoxin 1/PAG aa 103-114. Sequence: LVSDPKRTIAQD Run BLAST with Run BLAST with
阳性对照	Recombinant human Peroxiredoxin 1/PAG protein (ab74172) can be used as a positive control in WB. TSU Pr1 cells for cell staining, human PC3 cell lysate for western blotting.
常规说明	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. 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

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide
纯度	Whole antiserum

克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用ab15571于以下的经测试应用**

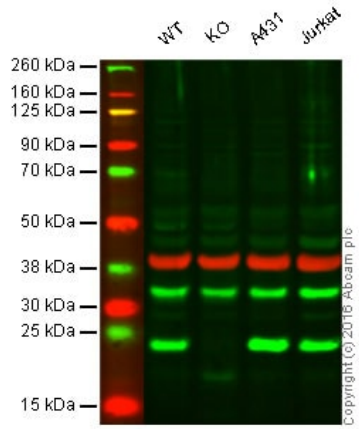
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF	★★★★★ (1)	1/200.
IHC-P	★★★★★ (1)	Use at an assay dependent concentration.
WB	★★★★☆ (7)	1/1000. Detects a band of approximately 20 kDa (predicted molecular weight: 22 kDa).

靶标

功能	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.
序列相似性	Belongs to the ahpC/TSA family. Contains 1 thioredoxin domain.
翻译后修饰	Phosphorylated on Thr-90 during the M-phase, which leads to a more than 80% decrease in enzymatic activity.
细胞定位	Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

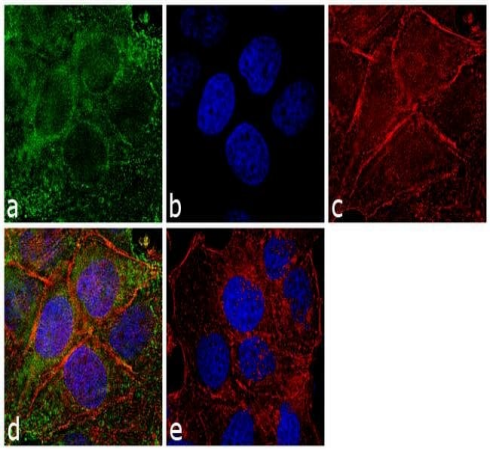
图片



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

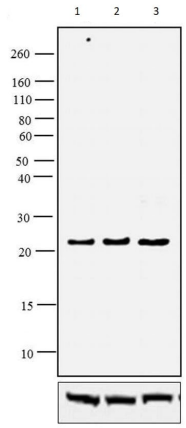
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Peroxiredoxin 1/PAG knockout HAP1 cell lysate (20 µg)
Lane 3: A431 cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab15571 observed at 23 kDa. Red - loading control, **ab8245**, observed at 37 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**) andGoat 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)

Immunocytochemistry/ Immunofluorescence analysis of Peroxiredoxin 1/PAG was performed using 70% confluent log phase T-47D cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with ab15571 at 1/250 dilution in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate at a dilution of 1/2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI. F-actin (Panel c: red) was stained with Rhodamine Phalloidin at 1/300. Panel d represents the merged image showing cytosolic and nuclear localization. Panel e shows the no primary antibody control. The images were captured at 60X magnification.



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

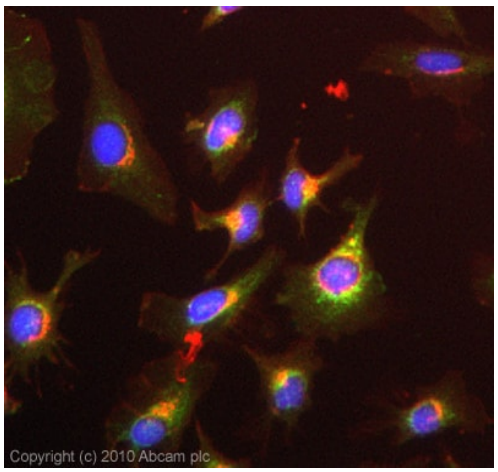
All lanes : Anti-Peroxiredoxin 1/PAG antibody (ab15571) at 1/250 dilution

Lane 1 : HepG2 whole cell lysate
Lane 2 : Raji whole cell lysate
Lane 3 : Ramos whole cell lysate

Lysates/proteins at 30 µg per lane.

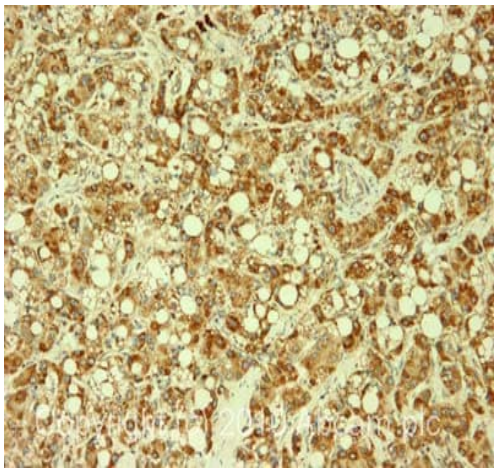
Secondary
All lanes : Goat anti-Rabbit IgG (H+L), HRP conjugate at 1/4000 dilution

Predicted band size: 22 kDa
Observed band size: 22 kDa



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

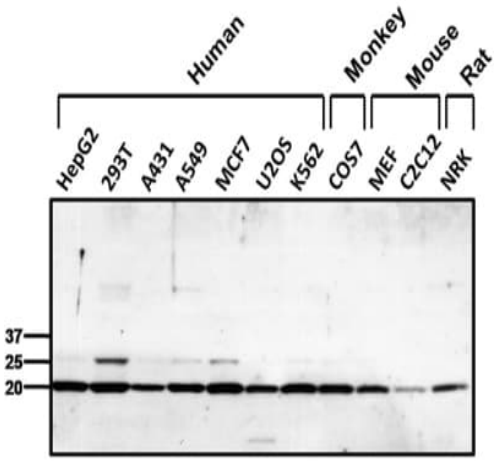
ICC/IF image of ab15571 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (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

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 25ug 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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