abcam

Product datasheet

Anti-Peroxiredoxin 1/PAG antibody ab41906

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
经测试应用	**适用于:** IHC-P, WB
种属反应性	**与反应:** Human **预测可用于:** Mouse, Rat, Rabbit, Cow
免疫原	Synthetic peptide corresponding to Human Peroxiredoxin 1/PAG aa 100 to the C-terminus conjugated to keyhole limpet haemocyanin. (Peptide available as **ab41919**, **ab41920**)
阳性对照	WB: U-2 OS, HAP1, A-431 and Jurkat cell lysates.
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 or -80°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising 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.

纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee **Abpromise™承诺保证使用**ab41906**于以下的**经测试应用

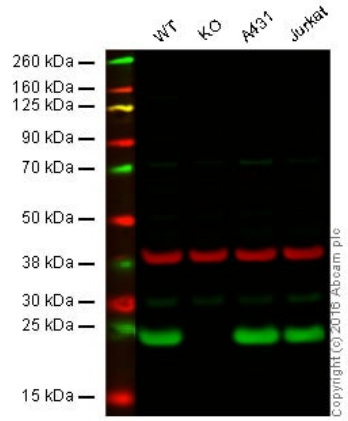
"应用说明"**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度/浓度应由使用者检定。**

应用	Ab评论	说明
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (3)	Use a concentration of 1 µg/ml. Detects a band of approximately 24 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.

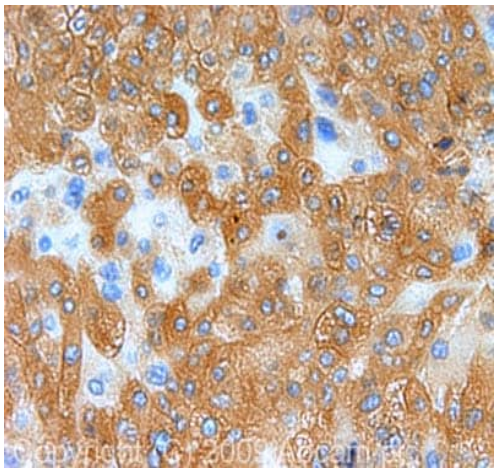
图片



Western blot - Anti-Peroxiredoxin 1/PAG antibody (ab41906)

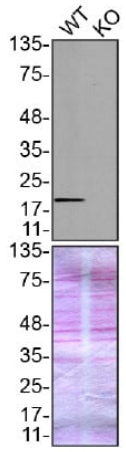
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Peroxiredoxin 1/PAG knockout HAP1 cell lysate (20 µg)
Lane 3: A431 cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab41906 observed at 23 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab41906 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. ab41906 and **ab8245** (loading control to GAPDH) at a concentration of 1 µg/ml and diluted to 1/10000 respectively were 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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Peroxiredoxin 1/PAG antibody (ab41906)

IHC image of Peroxiredoxin 1/PAG staining in human liver carcinoma FFPE section, performed on a 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 ab41906, 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 1/PAG antibody (ab41906)

All lanes : Anti-Peroxiredoxin 1/PAG antibody (ab41906) at 1/1000 dilution

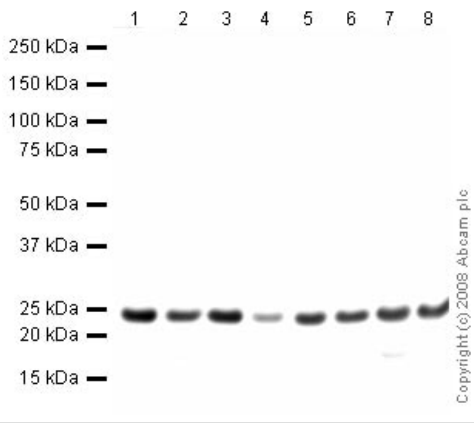
Lane 1 : Wild-type U-2 OS cell lysate
Lane 2 : PRDX1 knockout U-2 OS cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 22 kDa

ab41906 was shown to react with PRDX1 in wild-type U-2 OS cells in Western blot with loss of signal observed in a PRDX1 knockout cell line. Wild-type U-2 OS and PRDX1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab41906 overnight at 4 °C at a 1/1000 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.



Western blot - Anti-Peroxiredoxin 1/PAG antibody (ab41906)

All lanes : Anti-Peroxiredoxin 1/PAG antibody (ab41906) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 3 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 4 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 5 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 6 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 7 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate
Lane 8 : U2OS (Human osteosarcoma 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: 22 kDa
Observed band size: 24 kDa

Western blot - Anti-Peroxiredoxin 1/PAG antibody (ab41906)

Anti-Peroxiredoxin 1/PAG antibody (ab41906) at 1 µg/ml + Recombinant human Peroxiredoxin 1/PAG protein (**ab79945**) 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: 22 kDa

Exposure time: 30 seconds

This protein is a homodimer consisting of two subunits with an expected molecular weight of 23kDa.

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