

Product datasheet

Anti-Catalase antibody ab52477

KO VALIDATED

★★★★★ 8 Abreviews 18 References 5 Images

Overview

Product name	Anti-Catalase antibody
Description	Rabbit polyclonal to Catalase
Host species	Rabbit
Specificity	This antibody reacts with Catalase
Tested applications	Suitable for: WB, IP, ICC, IHC-P Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide corresponding to residues near the N terminus of human Catalase
Positive control	IHC-P: Human liver tissue WB: TF1 lysate

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol, 0.05% BSA
Purity	Protein A purified
Purification notes	Affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab52477** 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. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).
IP		1/10.
ICC		1/50 - 1/100.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt.

Target

Function Occurs in almost all aerobically respiring organisms and serves to protect cells from the toxic effects of hydrogen peroxide. Promotes growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells.

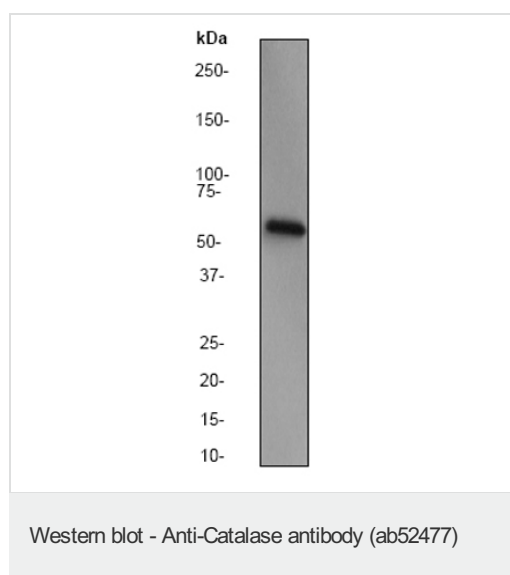
Involvement in disease Defects in CAT are the cause of acatalasia (ACATLAS) [MIM:115500]; also known as acatalasemia. This disease is characterized by absence of catalase activity in red cells and is often associated with ulcerating oral lesions.

Sequence similarities Belongs to the catalase family.

Post-translational modifications The N-terminus is blocked.

Cellular localization Peroxisome.

Images



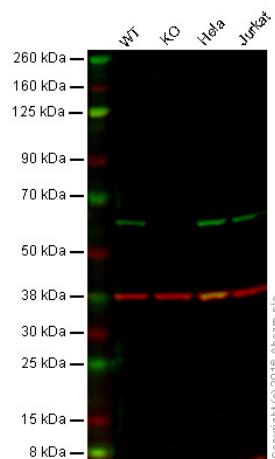
Anti-Catalase antibody (ab52477) at 1/1000 dilution + TF1 lysate at 10 µg

Secondary

Goat anti-rabbit HRP labeled at 1/2000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa



Western blot - Anti-Catalase antibody (ab52477)

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

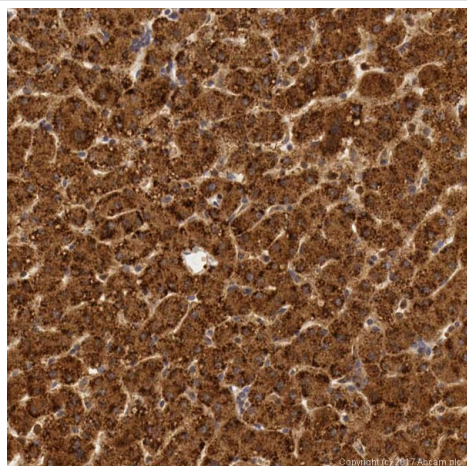
Lane 2: Catalase knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: Jurkat cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab52477 observed at 60 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab52477 was shown to specifically react with Catalase when Catalase knockout samples were used. Wild-type and Catalase knockout samples were subjected to SDS-PAGE. ab52477 and ab8245 (loading control to GAPDH) were diluted at 1/1000 and 1/10,000 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.

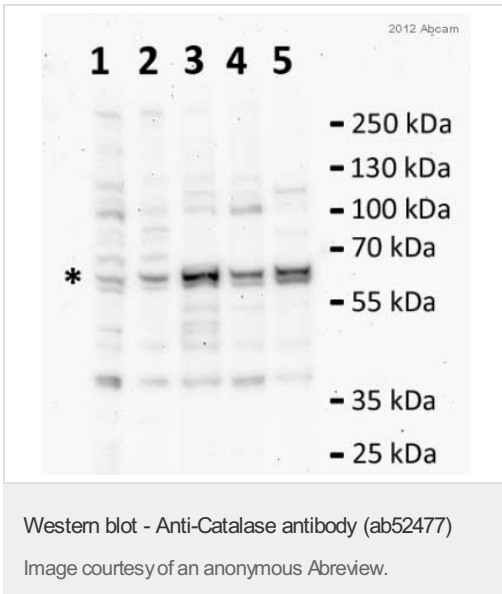


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Catalase antibody (ab52477)

IHC image of Catalase staining in a formalin fixed, paraffin embedded normal human liver 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 ab52477, 5µg/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.

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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



All lanes : Anti-Catalase antibody (ab52477) at 1 µg/ml

Lane 1 : Whole cell lysate prepared from 293T cells

Lane 2 : Whole cell lysate prepared from HeLa cells

Lane 3 : Whole cell lysate prepared from U251 cells

Lane 4 : Whole cell lysate prepared from Jurkat cells

Lane 5 : Whole cell lysate prepared from U2OS cells

Lysates/proteins at 20 µg per lane.

Secondary

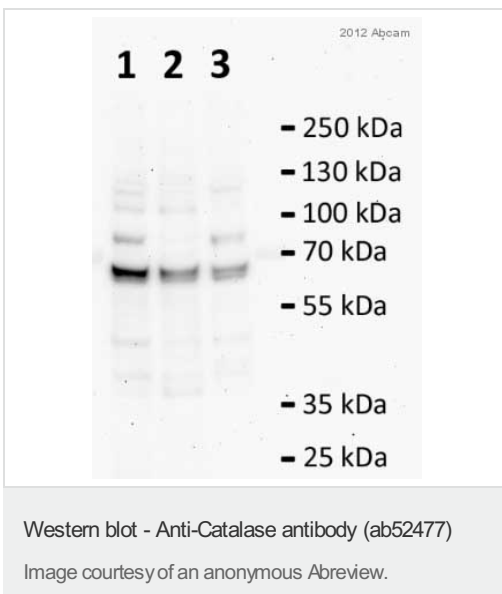
All lanes : HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 5 minutes



All lanes : Anti-Catalase antibody (ab52477) at 1 µg/ml

Lane 1 : Whole cell lysate prepared from 9L cells

Lane 2 : Whole cell lysate prepared from PC12 cells

Lane 3 : Whole cell lysate prepared from RIE-1 cells

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : HRP conjugated pig anti-rabbit polyclonal at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 5 minutes

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