


Product datasheet

Anti-Catalase antibody - Peroxisome Marker ab16731

★★★★★ [25 Abreviews](#) [171 References](#) [6 Images](#)

Overview

Product name	Anti-Catalase antibody - Peroxisome Marker
Description	Rabbit polyclonal to Catalase - Peroxisome Marker
Host species	Rabbit
Tested applications	Suitable for: IHC-Fr, ICC/IF, IHC-P, WB
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Rabbit, Goat, Dog, Ferret, Macaque monkey, Orangutan 
Immunogen	Recombinant full length protein. purified from E.coli Database link: P04040
General notes	<p>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.</p> <p>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</p>

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: 0.03% Sodium azide Constituents: HEPES, 50% Glycerol, 0.87% Sodium chloride, 0.01% BSA
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab16731 in the following tested applications.

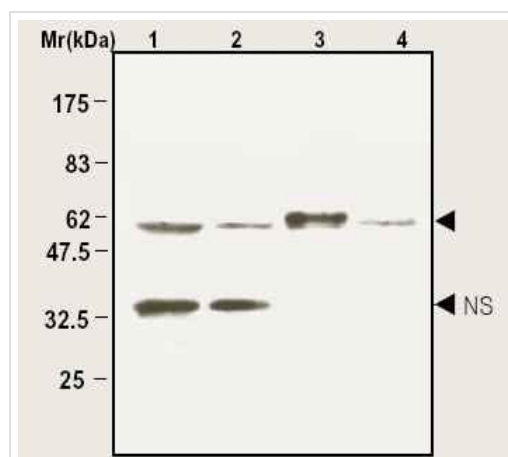
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-Fr	★★★★★ (3)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (5)	Use at an assay dependent concentration. See Abreview.
IHC-P	★★★★★ (2)	Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (14)	1/2000. Predicted molecular weight: 60 kDa.

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



Western blot - Anti-Catalase antibody - Peroxisome
Marker (ab16731)

Western Blot analysis of cell lysates.

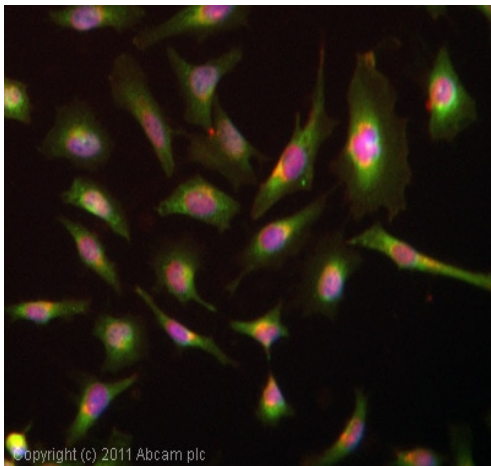
Lane 1: HeLa cell lysates

Lane 2: Jurkat cell lysates

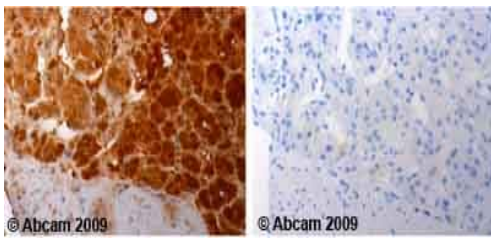
Lane 3: Mouse brain

Lane 4: Rat brain

The band marked with NS is probably non-specific.



Immunocytochemistry/ Immunofluorescence - Anti-Catalase antibody - Peroxisome Marker (ab16731)



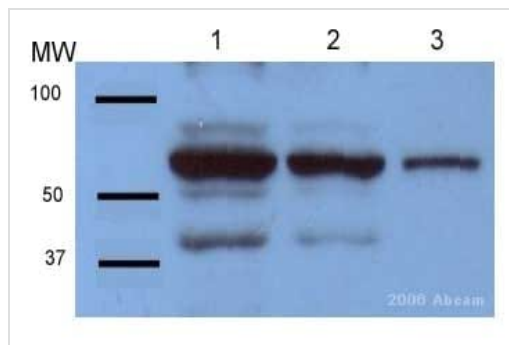
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Catalase antibody - Peroxisome Marker (ab16731)

ICC/IF image of ab16731 stained HeLa cells. The cells were 4% PFA fixed (10 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 (ab16731, 5µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG - H&L, pre-adsorbed (**ab96899**) used at a 1/250 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.

Ab16731 staining human normal adrenal gland tissue. Staining is localised to intracellular compartment (peroxisomes).

Left panel: with primary antibody at 1 µg/ml. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H₂O₂ in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification



Western blot - Anti-Catalase antibody - Peroxisome Marker (ab16731)

All lanes : Anti-Catalase antibody - Peroxisome Marker (ab16731)
at 1/2000 dilution

Lane 1 : 40ug supernatant of mouse liver homogenate

Lane 2 : 20ug supernatant of mouse liver homogenate

Lane 3 : 5ug supernatant of mouse liver homogenate

Secondary

All lanes : HRP conjugated donkey anti-rabbit antibody

Developed using the ECL technique.

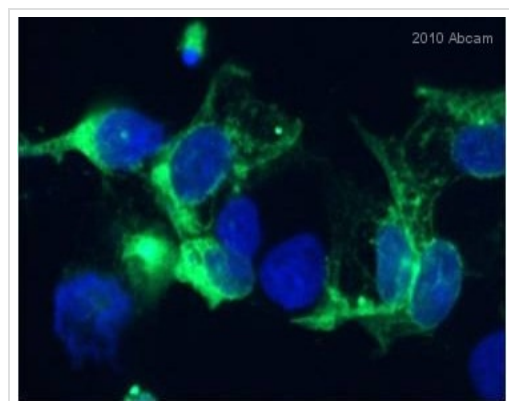
Performed under reducing conditions.

Predicted band size: 60 kDa

Observed band size: 60 kDa

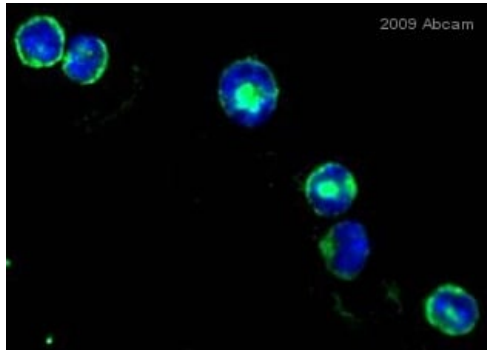
Exposure time: 1 minute

This image is courtesy of an Abreview submitted by **Sandra Sobocanec** on **16 March 2006**.



Immunocytochemistry/ Immunofluorescence - Anti-Catalase antibody - Peroxisome Marker (ab16731)
This image is a courtesy of an anonymous Abreview.

ab16731 at 1/200 dilution staining Catalase in human 293FT cells by Immunocytochemistry/ Immunofluorescence. Cells were fixed in formaldehyde and blocked in 5% BSA for 1 hour at 25°C. The primary antibody was used at 1/200 dilution in PBS and incubated with sample at 4°C for 12 hours. An Alexa Fluor® 488 conjugated Goat polyclonal to rabbit IgG was used undiluted as secondary.



Immunocytochemistry/ Immunofluorescence - Anti-Catalase antibody - Peroxisome Marker (ab16731)

This image is courtesy of an anonymous abreview.

ab16731 at a 1/200 dilution staining Catalase in mouse bone marrow cells by Immunocytochemistry/ Immunofluorescence, incubated for 9 hours at 4°C. Formalin fixed. Blocked with 2% BSA for 30 minutes at 20°C. Secondary used at 1/200 dilution polyclonal Goat anti-rabbit IgG conjugated to Alexa Fluor 488 (green). Nuclei stained with DAPI (blue).

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