abcam

Product datasheet

Anti-HDAC3 antibody ab7030

10 Abreviews 95 References 4 Images

Overview

Product name	Anti-HDAC3 antibody
Description	Rabbit polyclonal to HDAC3
Host species	Rabbit
Tested applications	**Suitable for:** ICC, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human, Monkey, Chinese hamster
Immunogen	Synthetic peptide corresponding to Human HDAC3 aa 411-428 conjugated to Keyhole Limpet Haemocyanin (KLH). The epitope recognized by the antibody is resistant to routine formalin-fixation and paraffin-embedding. Sequence: C-NEFYDGDHDNDKESDVEI Run BLAST with Run BLAST with

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: 0.0268% PBS
Purity	IgG fraction
Purification notes	Whole antiserum is fractionated and further purified by anion-exchange chromatography to provide the IgG fraction of antiserum that is essentially free of other rabbit serum proteins.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab7030** in the following tested applications.

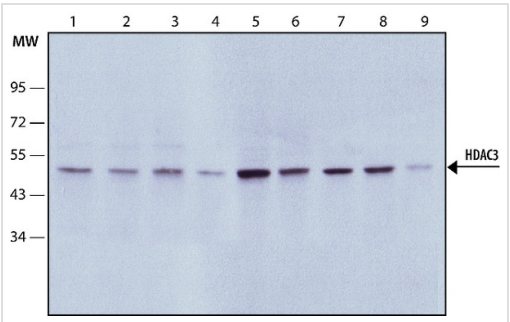
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		1/200.
WB	★★★★☆	Use a concentration of 2000 - 10000 µg/ml. Detects a band of approximately 49 kDa (predicted molecular weight: 49 kDa).

Target

Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Probably participates in the regulation of transcription through its binding to the zinc-finger transcription factor YY1; increases YY1 repression activity. Required to repress transcription of the POU1F1 transcription factor. Acts as a molecular chaperone for shuttling phosphorylated NR2C1 to PML bodies for sumoylation.
Tissue specificity	Widely expressed.
Sequence similarities	Belongs to the histone deacetylase family. HD type 1 subfamily.
Post-translational modifications	Sumoylated in vitro.
Cellular localization	Nucleus.

Images



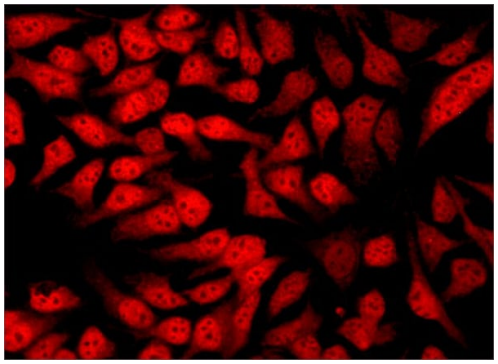
Western blot - Anti-HDAC3 antibody - ChIP Grade (ab7030)

All lanes : Anti-HDAC3 antibody (ab7030) at 1/5000 dilution

Lane 1 : HEK-293T whole cell lysate.
Lane 2 : HeLa whole cell lysate.
Lane 3 : K562 whole cell lysate.
Lane 4 : COS-7 whole cell lysate.
Lane 5 : CHO whole cell lysate.
Lane 6 : NIH-3T3 whole cell lysate.
Lane 7 : Neuro-2a whole cell lysate.
Lane 8 : PC-12 whole cell lysate.
Lane 9 : NRK whole cell lysate.

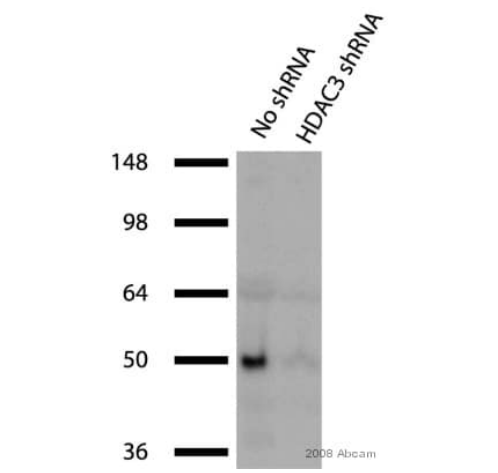
Secondary
All lanes : Goat Anti-Rabbit IgG-Peroxidase and a chemiluminescent substrate.

Predicted band size: 49 kDa



Immunocytochemistry - Anti-HDAC3 antibody - ChIP Grade (ab7030)

Immunocytochemical immunofluorescence analysis of HeLa cells labelling HDAC3 with ab7030. Cells were fixed and permeabilized with cold methanol followed by a cold methanol and acetone solution. Fixed cells were stained with ab7030 at a 1/200 concentration. The secondary used was a Goat Anti-Rabbit IgG, Cy3 conjugate.



Western blot - Anti-HDAC3 antibody - ChIP Grade (ab7030)

This image is courtesy of an anonymous Abreview

All lanes : Anti-HDAC3 antibody (ab7030) at 1/10000 dilution

Lane 1 : Whole cell lysate from human HEK293 cell line
Lane 2 : Whole cell lysate from human HEK293 cell line treated with HDAC3 gene silencing shRNA

Lysates/proteins at 20 µg per lane.

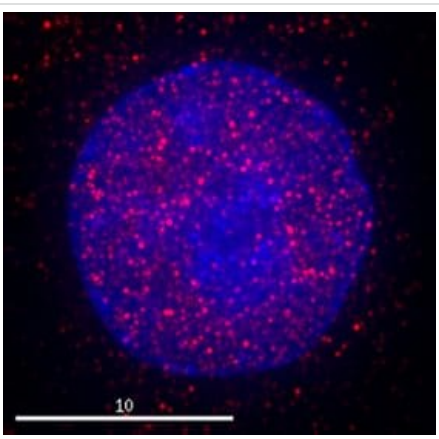
Secondary
All lanes : HRP-conjugated goat anti-rabbit Ig at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 49 kDa

Exposure time: 10 seconds



Immunocytochemistry - Anti-HDAC3 antibody (ab7030)

This image is courtesy of Michael Mancini, Baylor College of Medicine

Cells were fixed with 4% formaldehyde in PEM buffer. The coverslip was incubated in blocking buffer of 5% powdered milk in TBS-T plus 0.02% sodium azide for 1 hour at room temperature. Blocking buffer was removed and primary antibody was added at a dilution of 1/5000 and incubated overnight at 4 degrees celsius. The coverslips were then washed 4-5 times with blocking buffer for 5 minutes. Secondary antibody, goat anti-rabbit Alexa 594, was added at a dilution of 1/1000 and incubated at room temperature for one hour. From this point on coverslips were covered with foil to protect them from light. They were washed 5 times with TBS-T and then one time with PEM, for 5 minutes each wash. The coverslips were fixed 10-30 minutes in 4% formaldehyde in PEM buffer, then washed 3 times with PEM buffer for 5 minutes. 0.1M ammonium chloride in PEM buffer was added for 10 minutes to quench auto-florescence, and then slips were washed 2 times for 5 minutes in PEM followed by 3 washes for 5 minutes in

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