abcam

Product datasheet

Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free ab210472

KO VALIDATED Recombinant RabMAb

7 Images

Overview

Product name	Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR1698(2)] to HDAC6 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Human, African green monkey **Predicted to work with:** Monkey
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa, HAP1, Jurkat, K562, and COS-1 cell lysates, human kidney tissue.
General notes	ab210472 is the carrier-free version of **ab133493**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1698(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab210472 in the following tested applications.

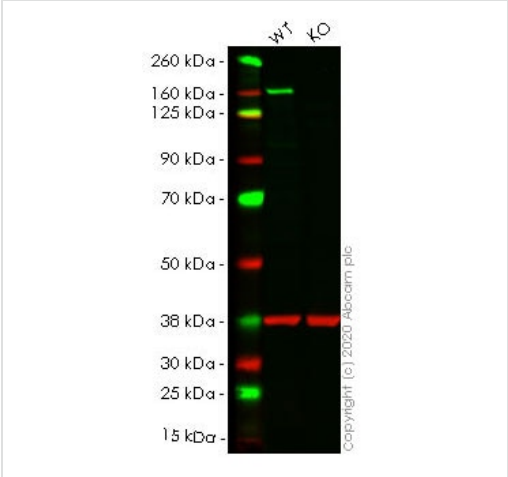
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 160 kDa (predicted molecular weight: 131 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 (By similarity). Plays a central role in microtubule-dependent cell motility via deacetylation of tubulin.
Sequence similarities	Belongs to the histone deacetylase family. HD type 2 subfamily. Contains 1 UBP-type zinc finger.
Post-translational modifications	Ubiquitinated. Its polyubiquitination however does not lead to its degradation. Sumoylated in vitro.
Cellular localization	Nucleus. Cytoplasm. It is mainly cytoplasmic, where it is associated with microtubules.

Images



Western blot - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

All lanes : Anti-HDAC6 antibody [EPR1698(2)] (**ab133493**) at 1/10000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : HDAC6 knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

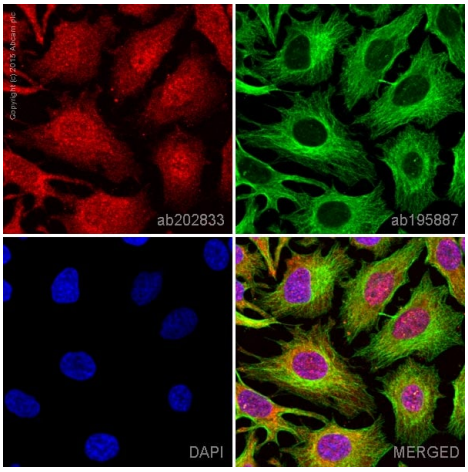
Performed under reducing conditions.

Predicted band size: 131 kDa
Observed band size: 160 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab133493**).

Lanes 1- 2: Merged signal (red and green). Green - **ab133493** observed at 160 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab133493 was shown to react with HDAC6 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line **ab264804** (knockout cell lysate **ab257145**) was used. Wild-type HeLa and HDAC6 knockout HeLa cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. **ab133493** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 10000 dilution and a 1 in 20000 dilution respectively. 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 in 20000 dilution for 1 hour at room temperature before imaging.



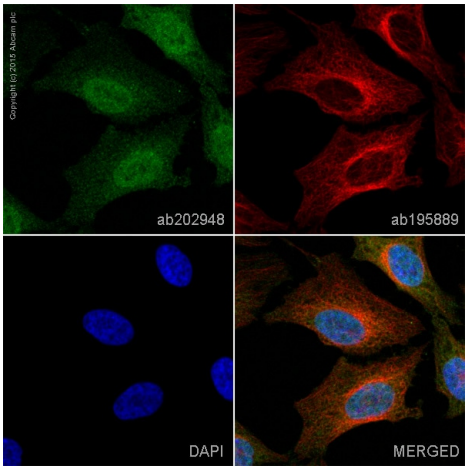
Immunocytochemistry/ Immunofluorescence - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

Clone EPR1698(2) (ab210472) has been successfully conjugated by Abcam. This image was generated using Anti-HDAC6 antibody [EPR1698(2)] (Alexa Fluor® 647). Please refer to **ab202833** for protocol details.

ab202833 staining HDAC6 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab202833** at a 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at a 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 4% formaldehyde (10 min).

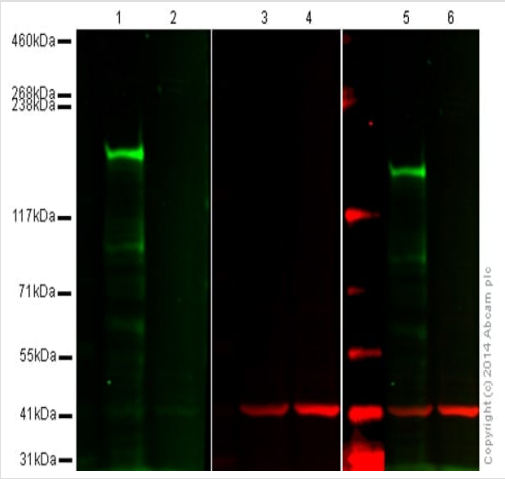


Immunocytochemistry/ Immunofluorescence - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

Clone EPR1698(2) (ab210472) has been successfully conjugated by Abcam. This image was generated using Anti-HDAC6 antibody [EPR1698(2)] (Alexa Fluor® 488). Please refer to **ab202948** for protocol details.

ab202948 staining HDAC6 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab202948** at 1/200 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Western blot - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

Lanes 1-2 : Anti-HDAC6 antibody [EPR1698(2)] (**ab133493**) at 1/10000 dilution
Lanes 3-4 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (**ab8226**) at 1/1000 dilution

Lanes 1 & 3 & 5 : Wild-type HAP1 cell lysate
Lanes 2 & 4 & 6 : HDAC6 knockout HAP1 cell lysate

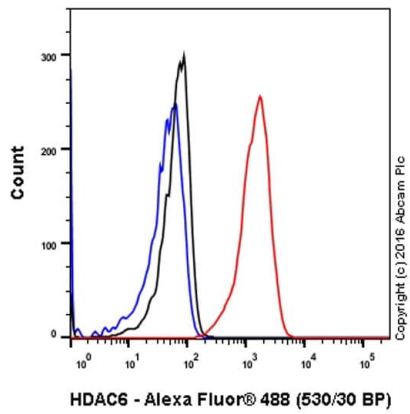
Lysates/proteins at 20 µg per lane.

Predicted band size: 131 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab133493**).

Lanes 1 and 2: Green signal from target – **ab133493** observed at 160 kDa
Lanes 3 and 4: Red signal from loading control – **ab8226** observed at 42 kDa
Lanes 5 and 6: Merged (red and green) signal

ab133493 was shown to specifically react with HDAC6 when HDAC6 knockout samples were used. Wild-type and HDAC6 knockout samples were subjected to SDS-PAGE. **ab133493** and **ab8226** (loading control to beta actin) were diluted 1/10 000 and 1/1000 respectively and incubated overnight at 4ºC. 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 1/10 000 dilution for 1 h at room temperature before imaging.



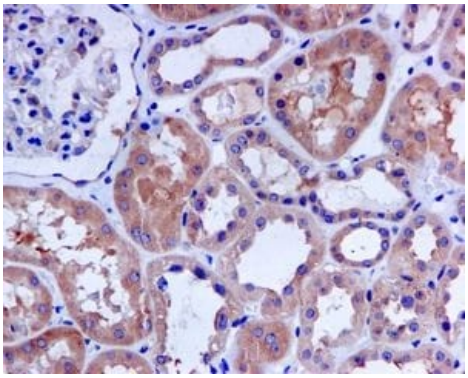
Flow Cytometry (Intracellular) - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

ab133493 staining HDAC6 in K562 (human chronic myelogenous leukemia) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde, permabilised with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/200. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab133493**).

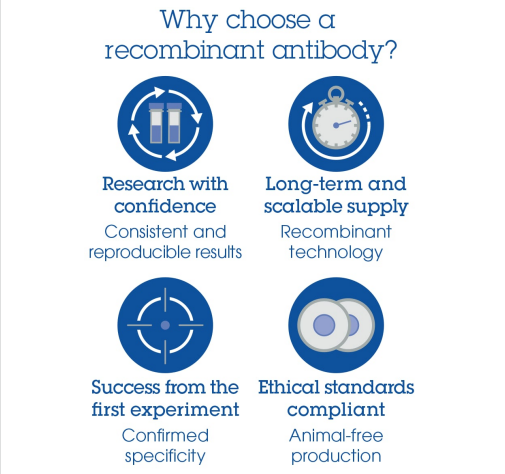


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

Immunohistochemical analysis of paraffin embedded Human kidney tissue labelling HDAC6 with **ab133493** antibody at a dilution of 1/50.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab133493**).



Anti-HDAC6 antibody [EPR1698(2)] - BSA and Azide free (ab210472)

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