abcam

Product datasheet

Anti-Histone H1x antibody - ChIP Grade ab31972

★★★★★ 3 Abreviews 12 References 4 Images

Overview

Product name	Anti-Histone H1x antibody - ChIP Grade
Description	Rabbit polyclonal to Histone H1x - ChIP Grade
Host species	Rabbit
Specificity	Using western blot analysis ab31972 recognises histone H1x in HeLa nuclear extract.
Tested applications	**Suitable for:** ChIP, ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Human Histone H1x aa 200 to the C-terminus conjugated to keyhole limpet haemocyanin. Database link: **Q92522** (Peptide available as **ab18052**)
Positive control	HeLa nuclear extract This antibody gave a positive result in IHC in the following FFPE tissue: Human breast adenocarcinoma.
General notes	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

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: 0.02% 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.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab31972 in the following tested applications.

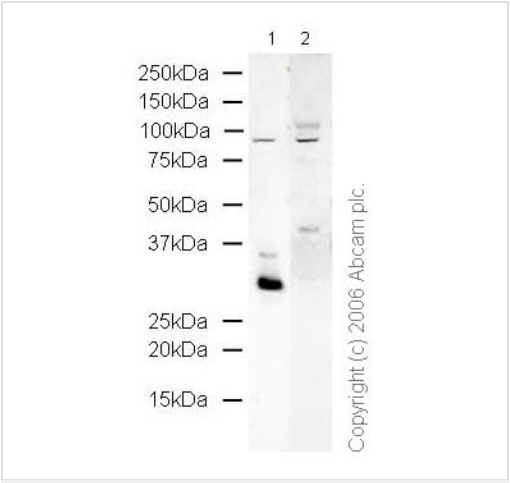
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ChIP	★★★★☆ (1)	Use 2 µg for 25 µg of chromatin.
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (2)	Use a concentration of 1 µg/ml. Detects a band of approximately 35 kDa (predicted molecular weight: 35 kDa).

Target

Function	Histones H1 are necessary for the condensation of nucleosome chains into higher-order structures.
Tissue specificity	Expressed ubiquitously.
Sequence similarities	Belongs to the histone H1/H5 family. Contains 1 H15 (linker histone H1/H5 globular) domain.
Cellular localization	Nucleus. Chromosome.

Images



Western blot - Anti-Histone H1x antibody - ChIP Grade (ab31972)

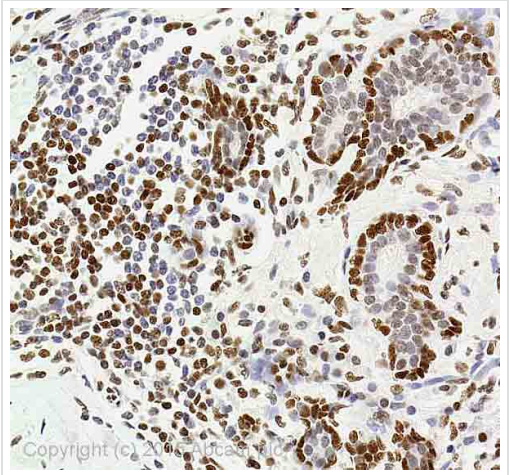
All lanes : Anti-Histone H1x antibody - ChIP Grade (ab31972) at 1 µg/ml

Lane 1 : HeLa nuclear lysate
Lane 2 : HeLa nuclear lysate with Human Histone H1x peptide (**ab18052**) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

Predicted band size: 35 kDa
Observed band size: 35 kDa
Additional bands at: 98 kDa (possible non-specific secondary antibody binding)

ab31972 recognises histone H1.X in HeLa nuclear extract at 35 kDa (lane 1), which is blocked using the immunizing peptide **ab18052**.

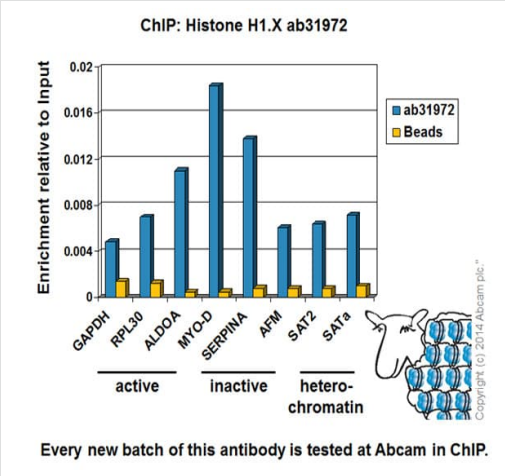


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1x antibody - ChIP Grade (ab31972)

IHC image of Histone H1x staining in Human breast adenocarcinoma formalin fixed paraffin embedded 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 ab31972, 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.

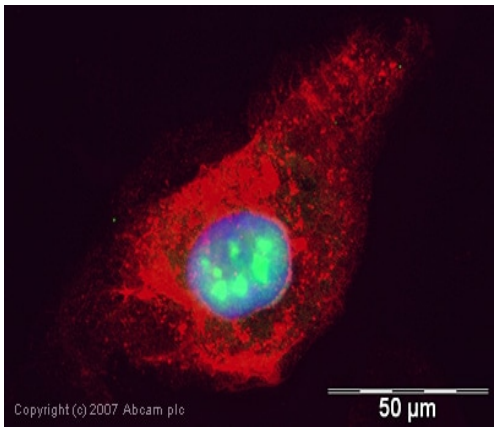
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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



ChIP - Anti-Histone H1x antibody - ChIP Grade (ab31972)

Chromatin was prepared from HeLa cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 25µg of chromatin, 2µg of ab31972 (blue), and 20µl of Protein A/G sepharose beads. No antibody was added to the beads control (yellow). The immunoprecipitated DNA was quantified by real time PCR (Taqman approach for active and inactive loci, Sybr green approach for heterochromatic loci). Primers and probes are located in the first kb of the transcribed region.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H1x antibody - ChIP Grade (ab31972)

ICC/IF image of ab31972 stained human HeLa cells. The cells were PFA fixed (10 min), permabilised in TBS-T (20 min) and incubated with the antibody (ab31972, 1µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).

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