# abcam

## Product datasheet

# Anti-Histone H1.2 antibody ab17677

★★★★★ <u>5 Abreviews</u> <u>32 References</u> 5 Images

Overview

**Product name** Anti-Histone H1.2 antibody

**Description** Rabbit polyclonal to Histone H1.2

Host species Rabbit

Specificity From Mar 2024, QC testing of replenishment batches of this polyclonal changed. All tested and

expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch,

please contact our Scientific Support who will be happy to help.

Tested applications Suitable for: ICC/IF, IP, WB

Species reactivity Reacts with: Human, Recombinant fragment

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control

This antibody gave a positive signal in Human H1.2 Recombinant Protein. ICC/IF: HeLa cell line

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.

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Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab17677 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/IF	<b>★★★★</b> (3)	Use a concentration of 1 µg/ml.
IP		Use a concentration of 5 µg/ml.
WB	<b>★★★★☆(2)</b>	1/1000. Detects a band of approximately 29 kDa (predicted molecular weight: 29 kDa).

### **Target**

**Function** Histones H1 are necessary for the condensation of nucleosome chains into higher order

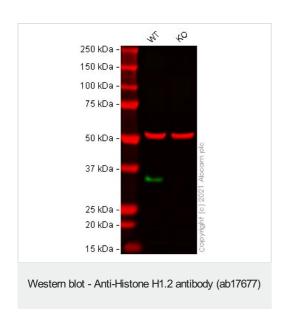
structures.

**Sequence similarities** Belongs to the histone H1/H5 family.

Contains 1 H15 (linker histone H1/H5 globular) domain.

**Cellular localization** Nucleus. Chromosome.

# **Images**



All lanes: Anti-Histone H1.2 antibody (ab17677) at 1/1000 dilution

Lane 1: Wild-type HeLa cell lysate

Lane 2: HIST1H1C knockout HeLa cell lysate

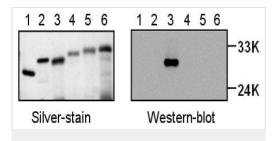
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 29 kDa Observed band size: 32 kDa

False colour image of Western blot: Anti-Histone H1.2 antibody staining at 1/1000 dilution, shown in green; Mouse anti-Alpha

Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab17677 was shown to bind specifically to Histone H1.2. A band was observed at 32 kDa in wild-type HeLa cell lysates with no signal observed at this size in HIST1H1C knockout cell line ab261794 (knockout cell lysate ab257218). To generate this image, wild-type and HIST1H1C knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween<sup>®</sup> 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit lgG H&L (IRDve<sup>®</sup> 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (ab216776) at 1/20000 dilution.



Western blot - Anti-Histone H1.2 antibody (ab17677)

This image is courtesy of Dr Albert Jordan and Monica Sancho, Center for Genomic Regulation (CRG). Recombinant H1 isoforms courtesy of Dr Nicole Happel.

All lanes: Anti-Histone H1.2 antibody (ab17677) at 1/1000 dilution

Lane 1: Recombinant histone H1

Lane 2: Recombinant histone H1.1

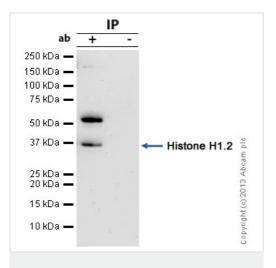
Lane 3: Recombinant histone H1.2

Lane 4: Recombinant histone H1.3

Lane 5: Recombinant histone H1.4

Lane 6: Recombinant histone H1.5

**Predicted band size:** 29 kDa **Observed band size:** 29 kDa



Immunoprecipitation - Anti-Histone H1.2 antibody (ab17677)

Histone H1.2 was immunoprecipitated using 0.5mg Hela whole cell extract,  $5\mu g$  of Rabbit polyclonal to Histone H1.2 and  $50\mu l$  of protein G magnetic beads (+). No antibody was added to the control (-).

The antibody was incubated under agitation with Protein G beads for 10min, Hela whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.

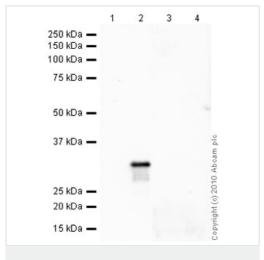
Proteins were eluted by addition of  $40\mu l$  SDS loading buffer and incubated for 10min at  $70\,^{\circ}$ C;  $10\mu l$  of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab 17677.

Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).

Band: 35kDa; Histone H1.2



Immunocytochemistry/ Immunofluorescence - Anti-Histone H1.2 antibody (ab17677)



Western blot - Anti-Histone H1.2 antibody (ab17677)

ab17677 staining Histone H1.2 in HeLa cells. The cells were fixed with 100% methanol (5 min) at room temperature, 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-Tritonn for 1h. The cells were then incubated with the antibody ab16766 at 0.1μg/ml and ab7291 (Mouse monoclonal to alpha Tubulin - Loading Control) used at a 1/1000 dilution overnight at +4°C. The secondary antibodies were ab150081, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed, (pseudo-colored green) and ab150120, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594) preadsorbed, (colored red), both used at a 1/1000 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43 μM for 1hour at room temperature.

All lanes: Anti-Histone H1.2 antibody (ab17677) at 1 µg/ml

Lane 1: Histone H1 Recombinant Protein

Lane 2: Histone H1.2 (Human) - Recombinant Protein

Lane 3: Histone H1 Recombinant Protein with Human Histone

H1.2 peptide (ab18500) at 1 µg/ml

Lane 4: Histone H1.2 (Human) - Recombinant Protein with Human

Histone H1.2 peptide (ab18500) at 1 µg/ml

Lysates/proteins at 0.1 µg per lane.

#### **Secondary**

**All lanes :** Goat polyclonal to Rabbit lgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 29 kDa Observed band size: 29 kDa

Exposure time: 12 minutes

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