


Product datasheet

Anti-Histone H2A.Z antibody - ChIP Grade ab97966

★☆☆☆☆ [2 Abreviews](#) [5 Images](#)

Overview

Product name	Anti-Histone H2A.Z antibody - ChIP Grade
Description	Rabbit polyclonal to Histone H2A.Z - ChIP Grade
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, WB, IHC-P, ChIP, IP
Species reactivity	Reacts with: Human Predicted to work with: Schizosaccharomyces pombe 
Immunogen	Synthetic peptide corresponding to Human Histone H2A.Z aa 65-128.
Positive control	MOLT4 or Raji cell lysate. ICC/IF HeLa cells IHC-P: Human normal colon FFPE tissue sections.
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. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab97966 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		Use a concentration of 0.5 µg/ml.
WB		1/500 - 1/3000. Predicted molecular weight: 14 kDa.
IHC-P		Use a concentration of 0.1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ChIP	★☆☆☆☆ (1)	Use 2 µg for 25 µg of chromatin.
IP		1/500 - 1/1000.

Target

Function

Variante histone H2A, die konventionelle H2A in einem Teil der Nucleosomen ersetzt. Nucleosomen wickeln und kompaktieren DNA in Chromatin, was die DNA-Verfügbarkeit für die zellulären Maschinen, die DNA als Vorlage benötigen, einschränkt. Histone spielen eine zentrale Rolle bei der Transkriptionsregulation, DNA-Reparatur, DNA-Replikation und Chromosomenstabilität. Die DNA-Verfügbarkeit wird durch eine komplexe Reihe von posttranslationalen Modifikationen der Histone, auch als Histone-Code bezeichnet, und Nucleosomen-Remodelling reguliert. Es kann an der Bildung von konstitutivem Heterochromatin beteiligt sein und ist für die Chromosomen-Segregation während der Zellteilung erforderlich.

Sequence similarities

Geht zur Histone H2A-Familie.

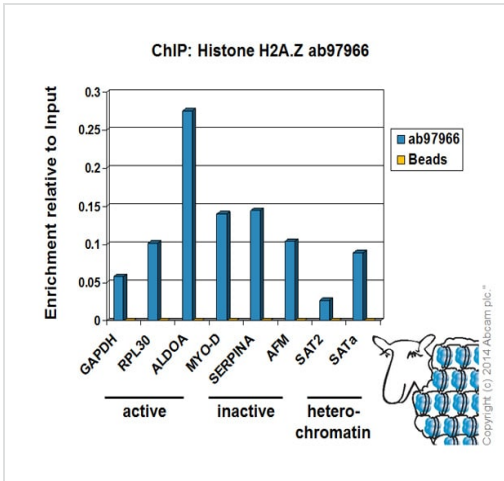
Post-translational modifications

Monoubiquitinierung von Lys-122 gibt ein spezifisches Tag für epigenetische Transkriptionsrepression. Acetyliert an Lys-5, Lys-8 und Lys-12 während der Interphase. Acetylierung verschwindet bei Mitose. Monomethyliert an Lys-5 und Lys-8 durch SETD6. SETD6 methyliert vorwiegend Lys-8, wobei Lys-5 ein möglicher sekundärer Standort ist. Nicht phosphoryliert.

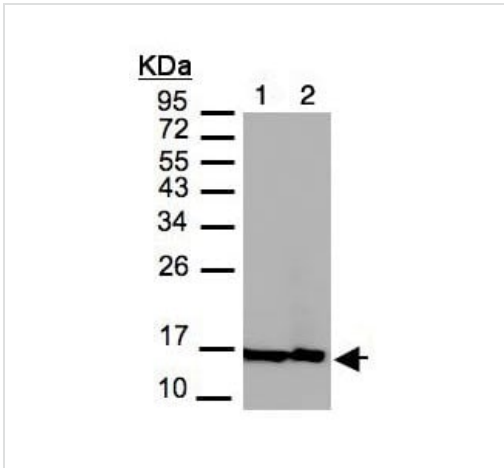
Cellular localization

Nucleus. Chromosom.

Images



ChIP - Anti-Histone H2A.Z antibody - ChIP Grade (ab97966)



Western blot - Anti-Histone H2A.Z antibody - ChIP Grade (ab97966)

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 ab97966 (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.

All lanes : Anti-Histone H2A.Z antibody - ChIP Grade (ab97966) at 1/3000 dilution

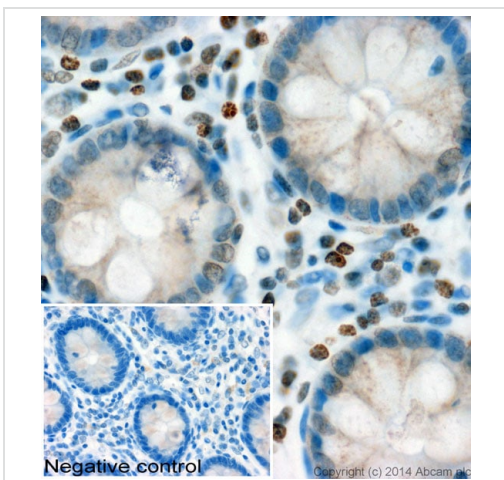
Lane 1 : MOLT4 whole cell lysate

Lane 2 : Raji whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 14 kDa

12% SDS PAGE

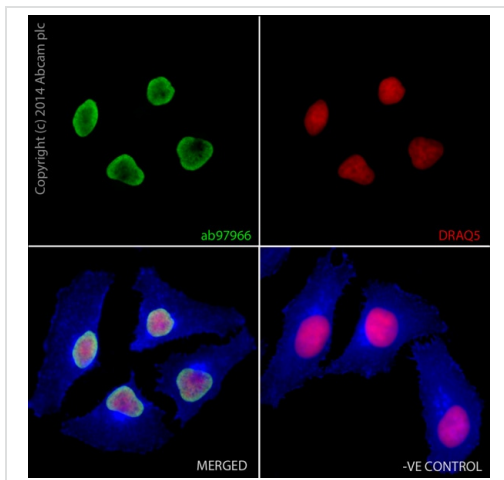


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody - ChIP Grade (ab97966)

IHC image of ab97966 staining Histone H3 (phospho T45) in human colon formalin fixed paraffin embedded tissue sections*, performed on a Leica Bond. 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 ab97966, 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. No primary antibody was used in the negative control (shown on the inset).

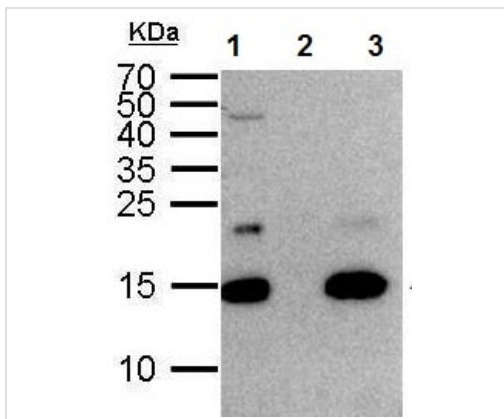
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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



Immunocytochemistry/ Immunofluorescence - Anti-Histone H2A.Z antibody - ChIP Grade (ab97966)

ab97966 staining Histone H2A.Z in HeLa cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab97966 at 0.5µg/ml overnight at +4°C, followed by a further incubation at room temperature for 1h with an AlexaFluor®488 Goat anti-Rabbit secondary (**ab150077**) at 2 µg/ml (shown in green). AlexaFluor®350 WGA was used at a 1/200 dilution and incubated for 1h with the cells, to label plasma membranes (shown in blue). Nuclear DNA was labelled in red with 1.25 µM DRAQ5™ (**ab108410**), which was added to the secondary antibody mixture. A secondary only negative control is displayed, which indicates that the Histone H2A.Z staining observed is due to primary antibody specificity and not to unspecific binding of the secondary antibody to the cells.



Immunoprecipitation - Anti-Histone H2A.Z antibody - ChIP Grade (ab97966)

ab97966 immunoprecipitating Histone H2A.Z protein in HeLa whole cell lysate/extract. Lane 1: 50 µg HeLa whole cell lysate/extract. Lane 2: Control with 2 µg of preimmune rabbit IgG. Lane 3: Immunoprecipitation of Histone H2A.Z protein by 2 µg of ab97966. The immunoprecipitated Histone H2A.Z protein was detected with ab97966 diluted at 1:1000. Anti-rabbit IgG was used as a secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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