

## Product datasheet

# Anti-Histone H2A (crotonyl K118) antibody [EP18768] ab195466

RabMAb

3 Images

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-Histone H2A (crotonyl K118) antibody [EP18768]   |
| <b>Description</b>         | Rabbit monoclonal [EP18768] to Histone H2A (crotonyl K118)  |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, PepArr   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Human  |
| <b>Immunogen</b>           | Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human Histone H2A aa 100 to the C-terminus (crotonyl L118). The exact sequence is proprietary.<br>Database link: <a href="#">P04908</a> |
| <b>Positive control</b>    | WB: HeLa and NIH/3T3 whole cell lysates.  |
| <b>General notes</b>       |   |

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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb<sup>®</sup> patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise<sup>™</sup> guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

## Properties

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|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Storage buffer</b>       | pH: 7.2<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA               |
| <b>Purity</b>               | Protein A purified  |
| <b>Clonality</b>            | Monoclonal  |
| <b>Clone number</b>         | EP18768   |
| <b>Isotype</b>              | IgG   |

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab195466** 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  |
|-------------|-----------|--|
| WB          |           | 1/1000. Detects a band of approximately 14 kDa (predicted molecular weight: 14 kDa). |
| PepArr      |           | Use at an assay dependent concentration.   |

## Target

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|   |  |
|---|--|
| <b>Function</b>                         | Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. |
| <b>Sequence similarities</b>            | Belongs to the histone H2A family.   |
| <b>Post-translational modifications</b> | The chromatin-associated form is phosphorylated on Thr-121 during mitosis.<br>Deiminated on Arg-4 in granulocytes upon calcium entry.<br>Monoubiquitination of Lys-120 by RING1 and RNF2/RING2 complex gives a specific tag for  |

epigenetic transcriptional repression and participates in X chromosome inactivation of female mammals. It is involved in the initiation of both imprinted and random X inactivation. Ubiquitinated H2A is enriched in inactive X chromosome chromatin. Ubiquitination of H2A functions downstream of methylation of 'Lys-27' of histone H3. Monoubiquitination of Lys-120 by RNF2/RING2 can also be induced by ultraviolet and may be involved in DNA repair. Following DNA double-strand breaks (DSBs), it is ubiquitinated through 'Lys-63' linkage of ubiquitin moieties by the E2 ligase UBE2N and the E3 ligases RNF8 and RNF168, leading to the recruitment of repair proteins to sites of DNA damage. Monoubiquitination and ionizing radiation-induced 'Lys-63'-linked ubiquitination are distinct events.

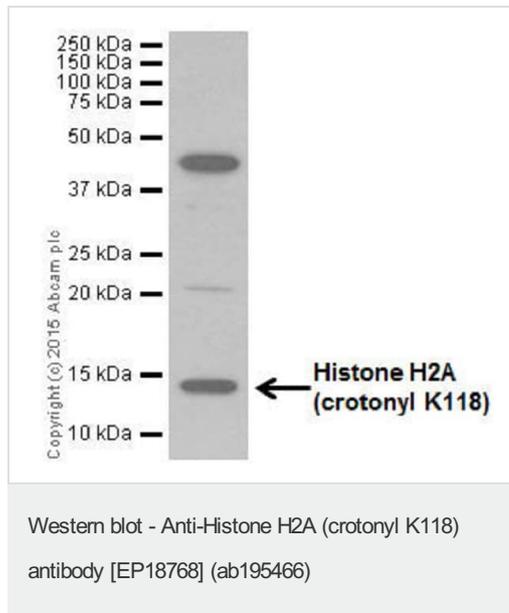
Phosphorylation on Ser-2 is enhanced during mitosis. Phosphorylation on Ser-2 by RPS6KA5/MSK1 directly represses transcription. Acetylation of H3 inhibits Ser-2 phosphorylation by RPS6KA5/MSK1.

Symmetric dimethylation on Arg-4 by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage.

## Cellular localization

Nucleus. Chromosome.

## Images



Anti-Histone H2A (crotonyl K118) antibody [EP18768] (ab195466)  
at 1/500 dilution + HeLa (Human epithelial cells from cervix  
adenocarcinoma) whole cell lysate at 10 µg

### Secondary

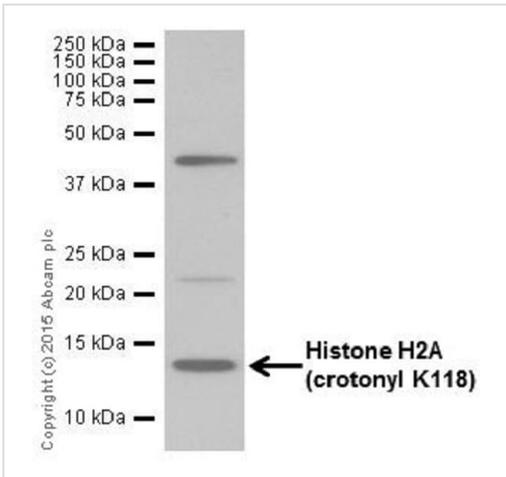
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 14 kDa

**Observed band size:** 14 kDa

**Exposure time:** 10 seconds

Blocking/Dilution buffer: 5% BSA/TBST.



Western blot - Anti-Histone H2A (crotonyl K118) antibody [EP18768] (ab195466)

Anti-Histone H2A (crotonyl K118) antibody [EP18768] (ab195466) at 1/500 dilution + NIH/3T3 (Mouse embryonic fibroblast cells) whole cell lysate at 10 µg

**Secondary**

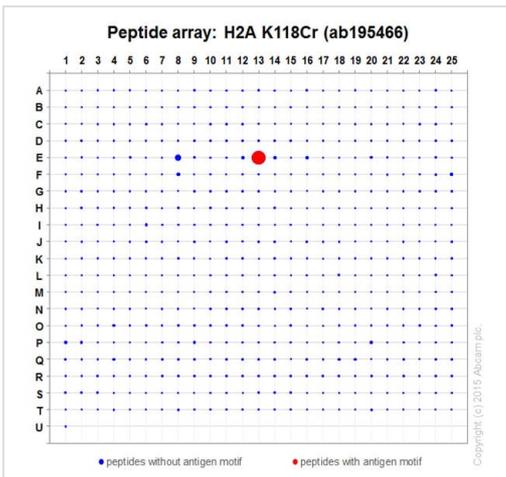
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 14 kDa

**Observed band size:** 14 kDa

**Exposure time:** 2 seconds

Blocking/Dilution buffer: 5% BSA/TBST.



Peptide Array - Anti-Histone H2A (crotonyl K118) antibody [EP18768] (ab195466)

ab195466 was tested in Peptide Array against 501 different modified and unmodified histone peptides; each peptide is printed on the array at six concentrations (each in triplicate).

Circle area represents affinity between the antibody and a peptide: all antigen-containing peptides are displayed as red circles, all other peptides as blue circles. The affinity is calculated as area under curve when antibody binding values are plotted against the corresponding peptide concentration. Each circle area is normalized to the peptide with the strongest affinity.

The complete dataset, including full list of all peptides and information on the position of each peptide in the diagram, can be downloaded [here](#).

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

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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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## **Terms and conditions**

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