

Product datasheet

Anti-Histone H2A antibody ab198006

2 Images

Overview

<b>Product name</b>	Anti-Histone H2A antibody
<b>Description</b>	Rabbit polyclonal to Histone H2A
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Fusion protein corresponding to Human Histone H2A aa 1-128. NP_542163. The identity of the protein fusion partner is GST. Sequence:  MSGRGKQGGKARAKAKTRSSRAGLQFPVGRVHRLLR KGNYAERVGAGAPV YLAADVLEYLTAEILELAGNAARDNKKTRIIPRHLQLAIRN DEELNKLLGK VTIAQGGVLPNIQAVLLPKKTESHHKAK  Database link: <a href="#">Q96KK5</a>   <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	K562, Raji, HeLa and 293T cell lysates; Human liver cancer tissue.

Properties

<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: 7.30 Preservative: 0.05% Sodium azide Constituents: 49% PBS, 50% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

Applications

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab198006** 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		1/500 - 1/2000. Predicted molecular weight: 14 kDa.
IHC-P		1/50 - 1/200.

## Target

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### Function

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.

### Sequence similarities

Belongs to the histone H2A family.

### Post-translational modifications

The chromatin-associated form is phosphorylated on Thr-121 during mitosis. Deiminated on Arg-4 in granulocytes upon calcium entry. 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.

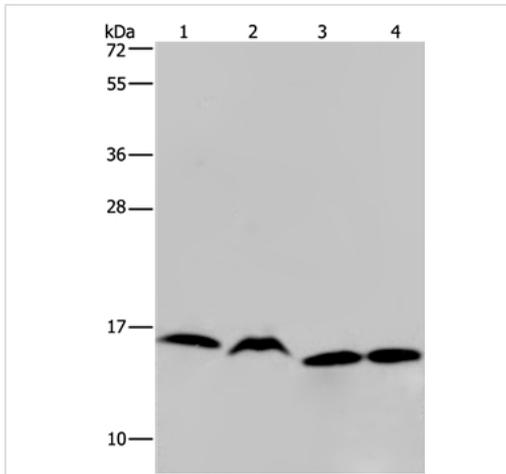
### Cellular localization

Nucleus. Chromosome.

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## Images

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Western blot - Anti-Histone H2A antibody  
(ab198006)

**All lanes :** Anti-Histone H2A antibody (ab198006) at 1/250 dilution

**Lane 1 :** K562 cell lysate

**Lane 2 :** Raji cell lysate

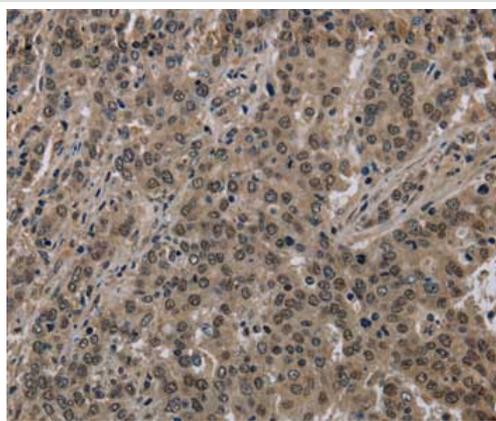
**Lane 3 :** HeLa cell lysate

**Lane 4 :** 293T cell lysate

Lysates/proteins at 40 µg per lane.

**Predicted band size:** 14 kDa

10% SDS-PAGE.



Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - Anti-Histone H2A antibody  
(ab198006)

Immunohistochemical analysis of paraffin-embedded Human liver  
cancer tissue labeling HIST1H2AH with ab198006 at a 1/40  
dilution.

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

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