abcam

Product datasheet

Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade ab188291

Recombinant RabMAb

5 References 4 Images

Overview

Product name	Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade
Description	Rabbit monoclonal [EPR18094] to Histone H2B (yeast) - ChIP Grade
Host species	Rabbit
Tested applications	**Suitable for:** PepArr, ChIP, WB
Species reactivity	**Reacts with:** Saccharomyces cerevisiae, Recombinant fragment
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Saccharomyces cerevisiae whole cell lysate. ChIP: Chromatin prepared from Saccharomyces cerevisiae cells.
General notes	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® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18094

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab188291 in the following tested applications.

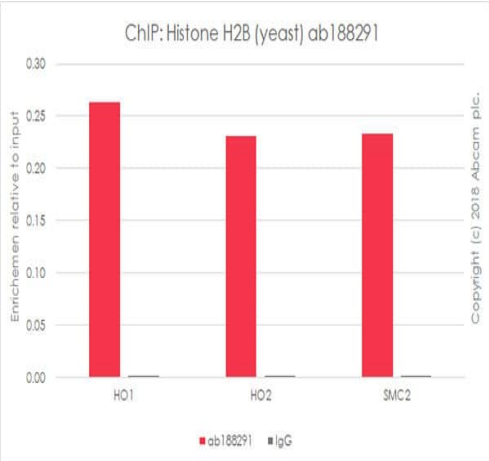
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
PepArr		Use at an assay dependent concentration.
ChIP		Use 2 µg for 25 µg of chromatin.
WB		1/2000. Detects a band of approximately 14 kDa (predicted molecular weight: 14 kDa).

Target

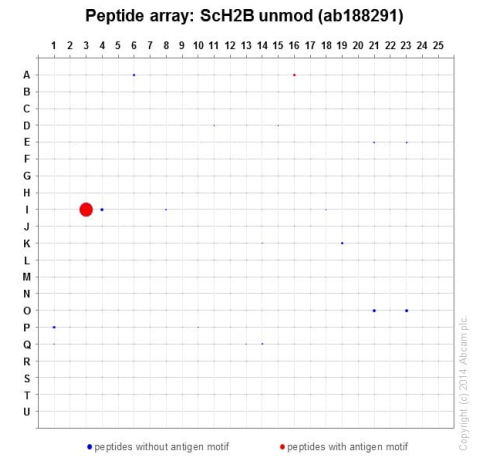
Function	Core component of nucleosome. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA 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 H2B family.
Post-translational modifications	Monoubiquitinated by the RAD6/UBC2-BRE1 complex to form H2BK123ub1. H2BK123ub1 gives a specific tag for epigenetic transcriptional activation and is also prerequisite for H3K4me and H3K79me formation. H2BK123ub1 also modulates the formation of double-strand breaks during meiosis and is a prerequisite for DNA-damage checkpoint activation. Deubiquitination is performed by UBP8 in presence of SGF11. Phosphorylated by STE20 to form H2BS10ph during progression through meiotic prophase. May be correlated with chromosome condensation. H2BS10ph is also formed after H(2)O(2) treatment, and is a step leading to apoptosis. Acetylated by GCN5, a component of the SAGA complex, to form H2BK11ac and H2BK16ac. H2BK16ac can also be formed by ESA1, a component of the NuA4 histone acetyltransferase (HAT) complex. Acetylation of N-terminal lysines and particularly formation of H2BK11acK16ac has a positive effect on transcription. Sumoylation to form H2BK6su or H2BK7su, and probably also H2BK16su or H2BK17su, occurs preferentially near the telomeres and represses gene transcription.
Cellular localization	Nucleus. Chromosome.

Images



ChIP - Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade (ab188291)

Chromatin was prepared from Saccharomyces cerevisiae cells according to the Abcam X-ChIP protocol. Saccharomyces cerevisiae cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 25µg of chromatin, 2µg of ab188291 (red), and 20µl of Anti rabbit IgG sepharose beads. 2µg of rabbit normal IgG was added to the beads control (grey). The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach).

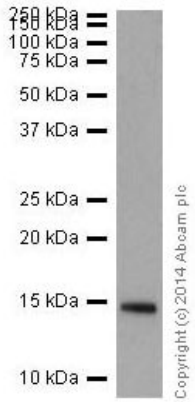


Peptide Array - Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade (ab188291)

ab188291 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**.



Western blot - Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade (ab188291)

Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade (ab188291) at 1/2000 dilution + Saccharomyces cerevisiae whole cell lysate at 10 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 14 kDa

Observed band size: 14 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Histone H2B (yeast) antibody [EPR18094] - ChIP Grade (ab188291)

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