


## Product datasheet

# Anti-Histone H2B (acetyl K12) antibody ab61228

[3 References](#) [2 Images](#)

### Overview

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<b>Product name</b>	Anti-Histone H2B (acetyl K12) antibody
<b>Description</b>	Rabbit polyclonal to Histone H2B (acetyl K12)
<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, African green monkey <b>Predicted to work with:</b> Rat 
<b>Immunogen</b>	Synthetic peptide within Human Histone H2B (acetyl K12). The exact sequence is proprietary. Sequence: PKK(Ac)GS

 [Run BLAST with](#)

 [Run BLAST with](#)

### 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

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride  Without Mg <sup>2+</sup> and Ca <sup>2+</sup>
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab61228 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific acetylated peptide. The antibody against non-acetylated peptide was removed by chromatography using non-acetylated peptide corresponding to the acetylation site.

<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab61228 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 - 1/1000. Detects a band of approximately 14 kDa (predicted molecular weight: 14 kDa).
IHC-P		1/50 - 1/100.

## Target

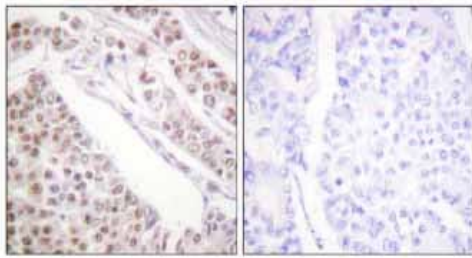
### Relevance

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. Subunit structure The nucleosome is a histone octamer containing two molecules each of H2A, H2B, H3 and H4 assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. The octamer wraps approximately 147 bp of DNA. Post-translational modification Monoubiquitination at Lys-35 (H2BK34Ub) by the MSL1/MSL2 dimer is required for histone H3 'Lys-4' (H3K4me) and 'Lys-79' (H3K79me) methylation and transcription activation at specific gene loci, such as HOXA9 and MEIS1 loci. Similarly, monoubiquitination at Lys-121 (H2BK120Ub) by the RNF20/40 complex gives a specific tag for epigenetic transcriptional activation and is also prerequisite for histone H3 'Lys-4' and 'Lys-79' methylation. It also functions cooperatively with the FACT dimer to stimulate elongation by RNA polymerase II. H2BK120Ub also acts as a regulator of mRNA splicing: deubiquitination by USP49 is required for efficient cotranscriptional splicing of a large set of exons. Phosphorylation at Ser-37 (H2BS36ph) by AMPK in response to stress promotes transcription. Phosphorylated on Ser-15 (H2BS14ph) by STK4/MST1 during apoptosis; which facilitates apoptotic chromatin condensation. Also phosphorylated on Ser-15 in response to DNA double strand breaks (DSBs), and in correlation with somatic hypermutation and immunoglobulin class-switch recombination. GlcNAcylation at Ser-113 promotes monoubiquitination of Lys-121. It fluctuates in response to extracellular glucose, and associates with transcribed genes. Crotonylation (Kcr) is specifically present in male germ cells and marks testis-specific genes in post-meiotic cells, including X-linked genes that escape sex chromosome inactivation in haploid cells. Crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. It is also associated with post-meiotically activated genes on autosomes.

### Cellular localization

Nuclear

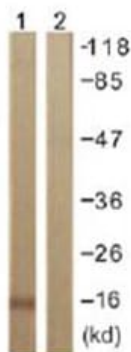
## Images



A-peptide - +

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2B (acetyl K12) antibody (ab61228)

Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue using Histone H2B (acetyl K12) antibody (ab61228) at 1/50 dilution, in the presence (right panel) or absence (left panel) of acetylated peptide.



TSA	+	+
A-Peptide	-	+

Western blot - Anti-Histone H2B (acetyl K12) antibody (ab61228)

**All lanes :** Anti-Histone H2B (acetyl K12) antibody (ab61228) at 1/500 dilution

**Lane 1 :** COS-7 (African green monkey kidney fibroblast-like cell line) cells treated with TSA (400nM, 24hours), without acetylated peptide

**Lane 2 :** COS-7 (African green monkey kidney fibroblast-like cell line) cells treated with TSA (400nM, 24hours) with acetylated peptide

**Predicted band size:** 14 kDa

**Observed band size:** 14 kDa

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

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