


### Anti-Histone H4 (acetyl K91) antibody - ChIP Grade ab4627

★★★★★ [12 Abreviews](#) [13 References](#) [3 图像](#)

#### 概述

产品名称	Anti-Histone H4 (acetyl K91)抗体- ChIP Grade
描述	兔多克隆抗体to Histone H4 (acetyl K91) - ChIP Grade
宿主	Rabbit
经测试应用	适用于: IP, ChIP-sequencing, IHC-P, WB, ICC/IF, ChIP
种属反应性	与反应: Mouse, Cow, Human, Saccharomyces cerevisiae 预测可用于: Rat, Chicken, Pig, Xenopus laevis, Caenorhabditis elegans, Drosophila melanogaster, Duck 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
常规说明	<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&amp;As</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituent: PBS</p> <p>Batches of this product that have a concentration &lt; 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.</p>
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

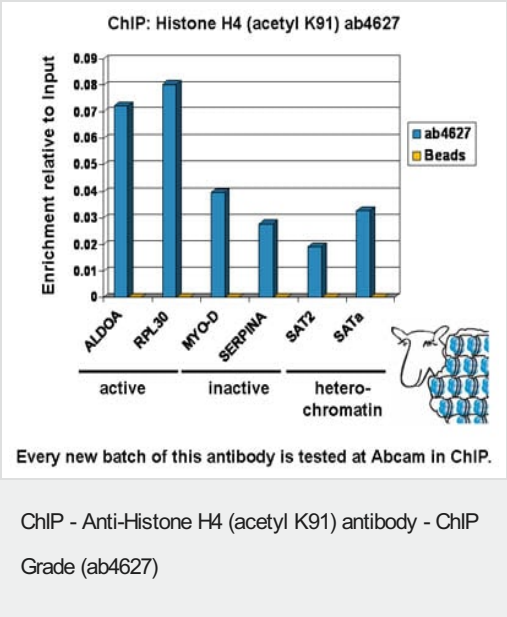
The Abpromise guarantee      **Abpromise™**承诺保证使用ab4627于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

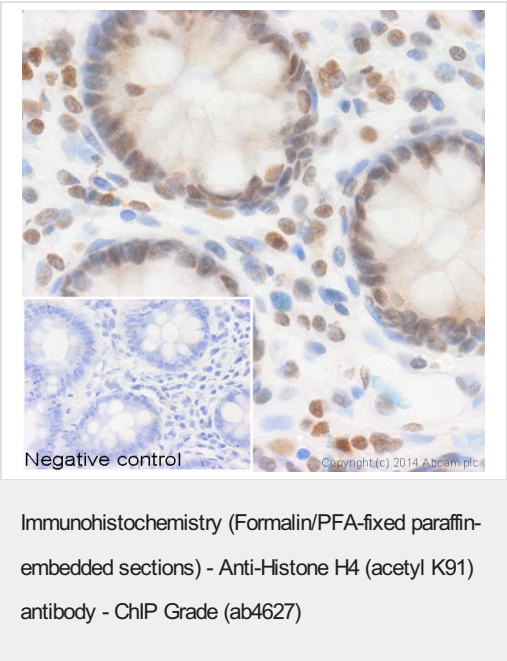
应用	Ab评论	说明
IP	★★★★★ (1)	Use at an assay dependent concentration.
ChIP-sequencing		Use at an assay dependent concentration.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★★ (5)	1/1000. Detects a band of approximately 11 kDa (predicted molecular weight: 12 kDa).
ICC/IF	★★★★★ (2)	Use at an assay dependent concentration.
ChIP	★★★★★ (2)	Use at an assay dependent concentration.

靶标

功能	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.
序列相似性	Belongs to the histone H4 family.
翻译后修饰	Acetylation at Lys-6 (H4K5ac), Lys-9 (H4K8ac), Lys-13 (H4K12ac) and Lys-17 (H4K16ac) occurs in coding regions of the genome but not in heterochromatin. Citrullination at Arg-4 (H4R3ci) by PAD4 impairs methylation. Monomethylation and asymmetric dimethylation at Arg-4 (H4R3me1 and H4R3me2a, respectively) by PRMT1 favors acetylation at Lys-9 (H4K8ac) and Lys-13 (H4K12ac). Demethylation is performed by JMJD6. Symmetric dimethylation on Arg-4 (H4R3me2s) by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage. Monomethylated, dimethylated or trimethylated at Lys-21 (H4K20me1, H4K20me2, H4K20me3). Monomethylation is performed by SET8. Trimethylation is performed by SUV420H1 and SUV420H2 and induces gene silencing. Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. Monoubiquitinated at Lys-92 of histone H4 (H4K91ub1) in response to DNA damage. The exact role of H4K91ub1 in DNA damage response is still unclear but it may function as a licensing signal for additional histone H4 post-translational modifications such as H4 Lys-21 methylation (H4K20me). Sumoylated, which is associated with transcriptional repression.
细胞定位	Nucleus. Chromosome.



Chromatin was prepared from U2OS cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10 min. The ChIP was performed with 25 µg of chromatin, 2 µg of ab4627 (blue), and 20 µl 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.



IHC image of ab4627 staining Histone H2A.X 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 ab4627, 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.



**Lanes 1 & 3 :** Anti-Histone H4 (acetyl K91) antibody - ChIP Grade (ab4627) at 1/500 dilution

**Lanes 2 & 4 :** Anti-Histone H4 (acetyl K91) antibody - ChIP Grade (ab4627) at 1/1000 dilution

**Lanes 1-2 :** Calf thymus histone prep.

**Lanes 3-4 :** Calf thymus histone prep. with Human Histone H4 (acetyl K91) peptide (**ab10112**) at 2 µg

Lysates/proteins at 1 µg per lane.

### Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab6721**) at 1/2000 dilution

**Predicted band size:** 12 kDa

Rabbit polyclonal to Histone H4 acetyl K91 (ab4627). All lanes contain 1ug of calf thymus Histone prep.

Lane 1: ab4627 at 1/500

Lane 2: ab4627 at 1/1000

Lane 3: ab4627 at 1/500 + 2ug acetyl K91 blocking peptide (**ab10112**)

Lane 4: ab4627 at 1/1000 + 2ug acetyl K91 blocking peptide (**ab10112**)

Secondary antibody: Goat anti-rabbit (HRP) - **ab6721** at 1/2000

**Predicted Molecular weight**11kDa

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

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