

Anti-Histone H4 antibody [mAbcam 17036] - ChIP Grade ab17036

★★★★★ [4 Abreviews](#) [9 References](#) [7 图像](#)

概述

产品名称	Anti-Histone H4抗体[mAbcam 17036] - ChIP Grade
描述	小鼠单克隆抗体[mAbcam 17036] to Histone H4 - ChIP Grade
宿主	Mouse
经测试应用	适用于: IHC-P, ChIP, WB
种属反应性	与反应: Mouse, Rat, Cow, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as ab13843)
阳性对照	This antibody gave a positive signal in the following: Calf thymus histone preparation; HeLa histone preparation; Histone H4 recombinant protein; NIH3T3 Whole Cell Lysate; MEF1 Whole Cell Lysate; PC12 Whole Cell Lysate.
常规说明	<p>To detect histone H4 by ICC/IF, we recommend using ab177840 or ab9052 since these antibodies perform better in this application.</p> <p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <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&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	pH: 7.40 Preservative: 0.02% Sodium azide

	Constituent: PBS
纯度	IgG fraction
克隆	单克隆
克隆编号	mAbcam 17036
骨髓瘤	Sp2/0-Ag14
同种型	IgG2a
轻链类型	kappa

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab17036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
IHC-P	★★★★★ (1)	Use a concentration of 1 µg/ml.
ChIP		Use 5 µg for 25 µg of chromatin.
WB	★★★★★ (2)	Use a concentration of 1 µg/ml. Detects a band of approximately 14 kDa (predicted molecular weight: 11 kDa).Can be blocked with Human Histone H4 peptide (ab13843) . We recommend using 3% milk as the blocking agent for Western blot.

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. Citullination 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

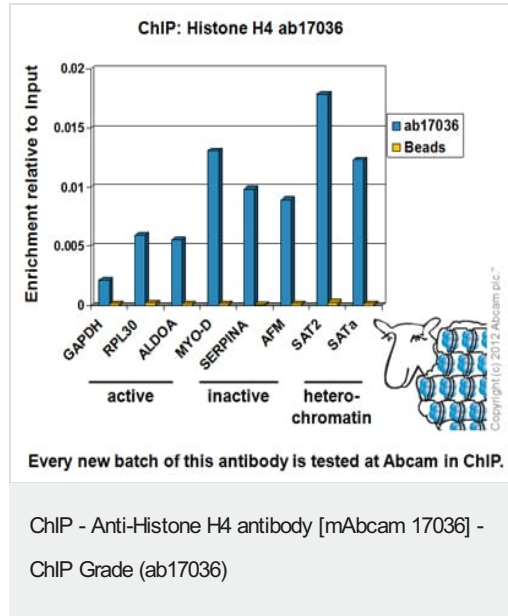
licensing signal for additional histone H4 post-translational modifications such as H4 Lys-21 methylation (H4K20me).

Sumoylated, which is associated with transcriptional repression.

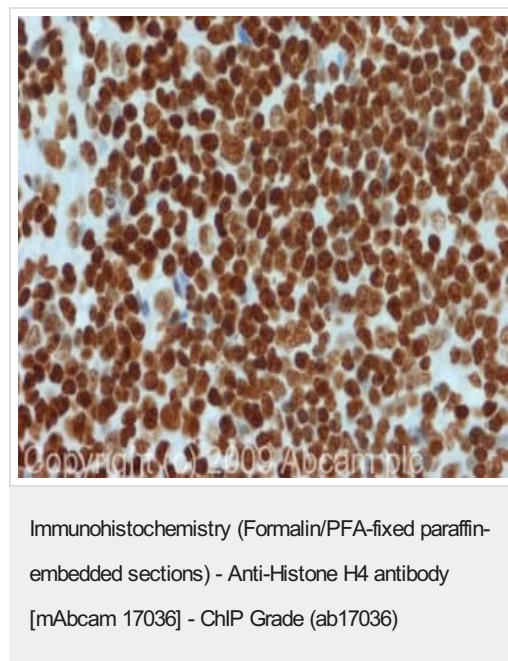
细胞定位

Nucleus. Chromosome.

图片

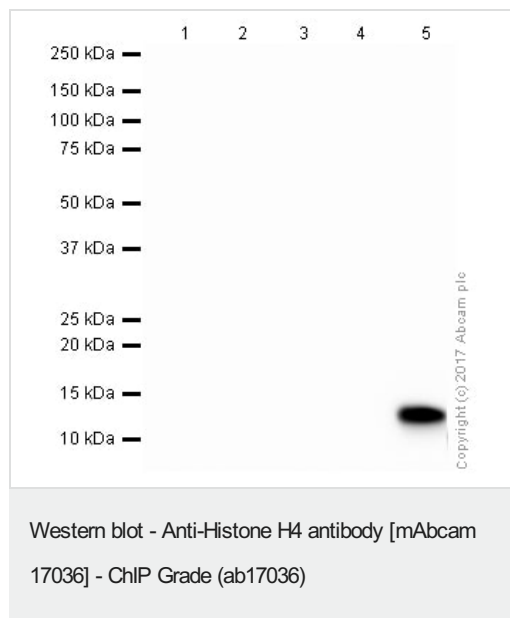


Chromatin was prepared from HeLa cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 25µg of chromatin, 5µg of ab17036 (blue), and 20µl of protein A/G sepharose beads. No antibody was added to the beads control (yellow). The immunoprecipitated 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 ab17036 staining in Human Hodgekin's Lymphoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. 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 ab17036, 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.

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.



All lanes : Anti-Histone H4 antibody [mAbcam 17036] - ChIP Grade (ab17036) at 2 µg/ml

Lane 1 : Histone H1 Recombinant Protein

Lane 2 : Histone H2A Recombinant Protein

Lane 3 : Histone H2B Recombinant Protein

Lane 4 : Histone H3.1 Recombinant Protein

Lane 5 : Histone H4 Recombinant Protein

Lysates/proteins at 0.1 µg per lane.

Secondary

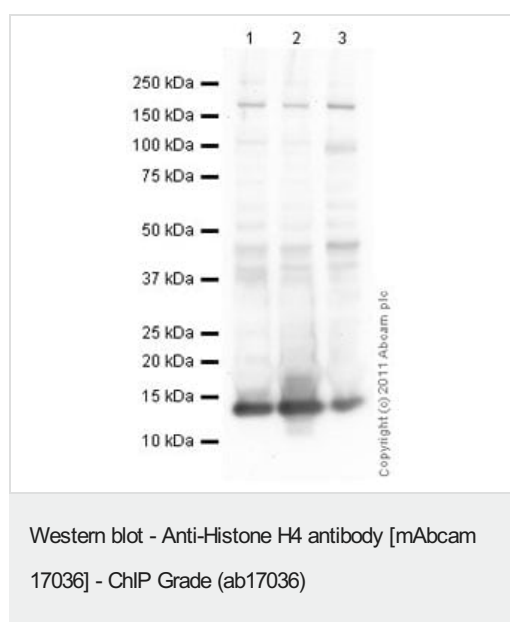
All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/5000 dilution

Performed under reducing conditions.

Predicted band size: 11 kDa

Observed band size: 11 kDa

Exposure time: 30 seconds



All lanes : Anti-Histone H4 antibody [mAbcam 17036] - ChIP Grade (ab17036) at 1 µg/ml

Lane 1 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 2 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 3 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

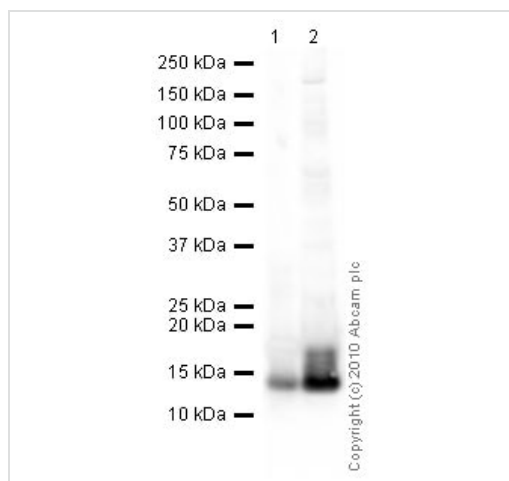
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 11 kDa

Observed band size: 14 kDa

Exposure time: 1 minute



Western blot - Anti-Histone H4 antibody [mAbcam 17036] - ChIP Grade (ab17036)

All lanes : Anti-Histone H4 antibody [mAbcam 17036] - ChIP

Grade (ab17036) at 5 µg/ml

Lane 1 : Calf Thymus Histone Preparation Nuclear Lysate at 0.5 µg

Lane 2 : HeLa Histone Preparation Nuclear Lysate at 2.5 µg

Secondary

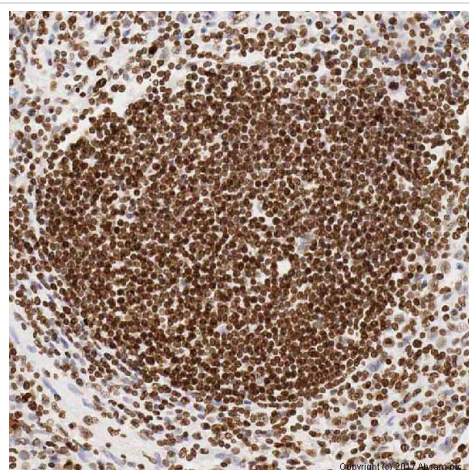
All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 11 kDa

Observed band size: 14 kDa

Exposure time: 1 minute

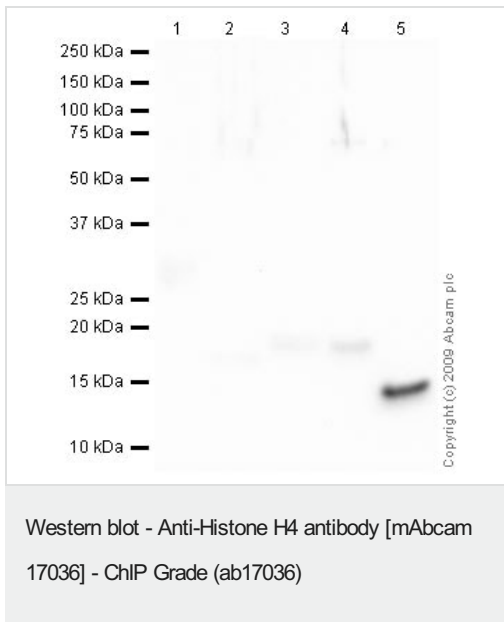


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 antibody [mAbcam 17036] - ChIP Grade (ab17036)

IHC image of Histone H4 staining in formalin fixed, paraffin embedded human Hodgkin's lymphoma tissue section*, performed on a Leica Bond™ system using the standard protocol F. 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 ab17036, 1 µg/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.

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.

*Tissue obtained from the Human Research Tissue Bank,
supported by the NIHR Cambridge Biomedical Research Centre



All lanes : Anti-Histone H4 antibody [mAbcam 17036] - ChIP
Grade (ab17036) at 5 µg/ml

Lane 1 : Histone H1 Recombinant Protein

Lane 2 : Histone H2A Recombinant Protein

Lane 3 : Histone H2B Recombinant Protein

Lane 4 : Histone H3.1 Recombinant Protein

Lane 5 : Histone H4 Recombinant Protein

Lysates/proteins at 0.1 µg per lane.

Secondary

All lanes : Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed
(HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size: 11 kDa

Observed band size: 14 kDa

Exposure time: 30 seconds

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