# abcam

# Product datasheet

# HRP Anti-Histone H4 antibody [mAbcam 31830] ab197517

1 References 画像数 2

製品の概要

製品名 HRP Anti-Histone H4 antibody [mAbcam 31830]

製品の詳細 HRP Mouse monoclonal [mAbcam 31830] to Histone H4

**由来種** Mouse 標識 HRP

アプリケーション 適用あり: WB, IHC-P

種交差性 交差種: Cow, Human, Recombinant fragment

交差が予測される動物種: Mouse, Rat 🔷

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

(Peptide available as ab13843)

ポジティブ・コントロール WB: Calf thymus histone preparation nuclear lysate. HeLa whole cell lysate (ab150035). Histone

H4 recombinant protein. IHC-P: Normal human colon tissue.

特記事項

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

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle. Store In the Dark.

**バッファー** pH: 7.40

Preservative: 0.1% Proclin 300 Solution

Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

精製度 Affinity purified

**ポリ/モノ** モノクローナル

**クローン名** mAbcam 31830

1

**₹I**□-**₹** Sp2/0-Ag14

アイソタイプ IgG1

軽鎖の種類 kappa

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab197517の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/5000. Detects a band of approximately 14 kDa (predicted molecular weight: 11 kDa). Can be blocked with <b>Human Histone H4 peptide (ab13843)</b> .
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

#### ターゲット情報

機能 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.

配列類似性 Belongs to the histone H4 family.

翻訳後修飾 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 PADI4 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).

 $\label{thm:monomethylation} \mbox{Monomethylation is performed by SUV420H1 and} \\$ 

SUV420H2 and induces gene silencing.

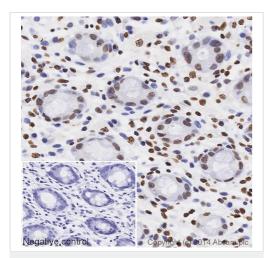
Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. Monoubiquitinated at Lys-92 of histone H4 (H4K91ub1) in response to DNA damage. The exact role of H4K91ub1 in 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.

細胞内局在 Nucleus. Chromosome.

#### 画像



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - HRP Anti-Histone H4 antibody [mAbcam 31830] (ab197517)



Western blot - HRP Anti-Histone H4 antibody [mAbcam 31830] (ab197517)

IHC image of Histone H4 staining in a section of formalin-fixed paraffin-embedded normal human colon\*, 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 20mins. The section was then incubated with ab197517 at 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

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 :** HRP Anti-Histone H4 antibody [mAbcam 31830] (ab197517) at 1/5000 dilution

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

Lane 2: HeLa whole cell lysate (<u>ab150035</u>) at 10 μg Lane 3: Histone H4 Recombinant Protein at 0.1 μg Lane 4: Histone H3.1 Recombinant Protein at 0.1 μg

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 11 kDa
Observed band size: 14 kDa

Exposure time: 30 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab197517 overnight at 4°C. Antibody binding was visualised using ECL development solution ab133406.

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