

# Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - CHIP Grade ab177190

リコンビナント RabMAb

★★★★★ **4 Abreviews** **3 References** [画像数 7](#)

### 製品の概要

製品名	Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - CHIP Grade
製品の詳細	Rabbit monoclonal [EPR17001(2)] to Histone H4 (tri methyl K20) - CHIP Grade
由来種	Rabbit
アプリケーション	<b>適用あり:</b> IHC-P, WB, Dot blot, ChIP
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HeLa and NIH/3T3 cell lysates. IHC-P: Human, mouse and rat colon tissues. ICC/IF: HeLa cells. ChIP: Chromatin prepared from HeLa cells.
特記事項	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### 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 long term. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR17001(2)
アイソタイプ	IgG

## アプリケーション

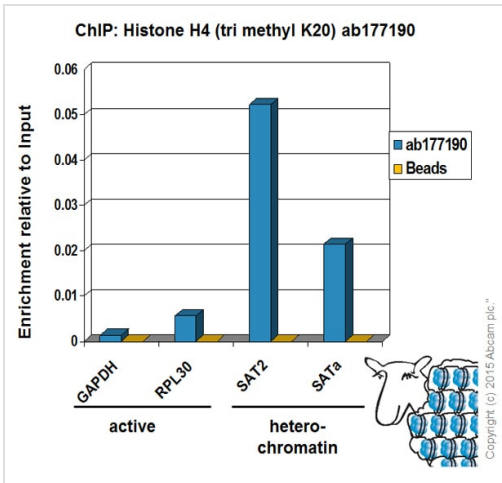
**The Abpromise guarantee** Abpromise保証は、次のテスト済みアプリケーションにおけるab177190の使用に適用されます  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IHC-P	★★★★★ (1)	1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 11 kDa (predicted molecular weight: 11 kDa).
Dot blot		1/1000.
ChIP	★★★★★ (2)	Use 2 µg for 25 µg of chromatin.

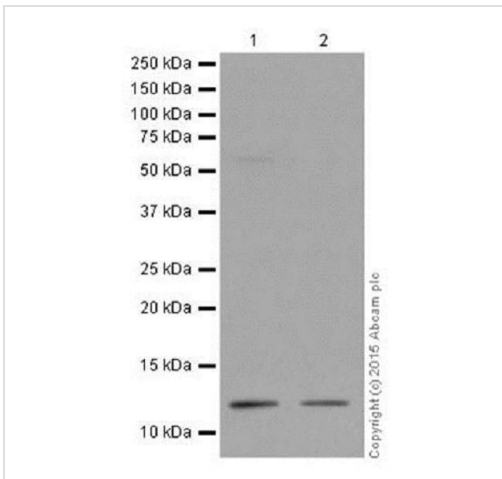
## ターゲット情報

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. Citullination 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). 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.
細胞内局在	Nucleus. Chromosome.

## 画像



ChIP - Anti-Histone H4 (tri methyl K20) antibody  
 [EPR17001(2)] - ChIP Grade (ab177190)



Western blot - Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - ChIP Grade (ab177190)

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, 2µg of ab177190 (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 loci and Sybr green approach for heterochromatic loci). Primers and probes are located in the first kb of the transcribed region.

**All lanes :** Anti-Histone H4 (tri methyl K20) antibody  
 [EPR17001(2)] - ChIP Grade (ab177190) at 1/1000 dilution

**Lane 1 :** HeLa (Human epithelial cells from cervix adenocarcinoma) cell lysate

**Lane 2 :** NIH 3T3 (Mouse embryo fibroblast cells) cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

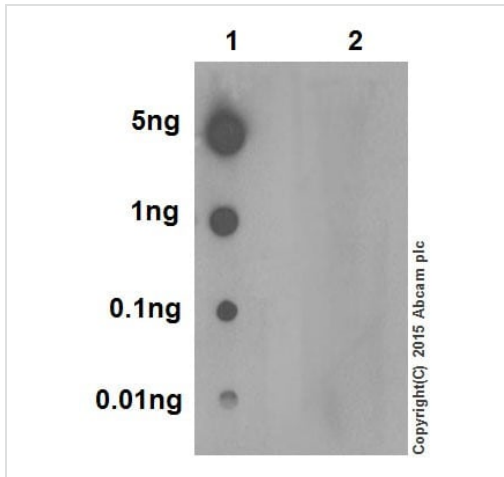
**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 11 kDa

**Observed band size:** 11 kDa

**Exposure time:** 1 minute

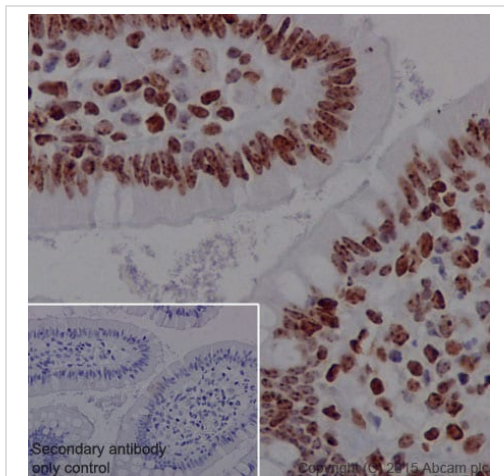
5% NFDm/TBST: Blocking and diluting buffer.



Dot Blot - Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - ChIP Grade (ab177190)

Dot blot analysis of Histone H4 (tri methyl K20) peptide(aa16-25) (Lane 1) and unmodified Histone H4 peptide (aa 16-25) (Lane 2) labeled using ab177190 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated secondary antibody at 1/1000 dilution.

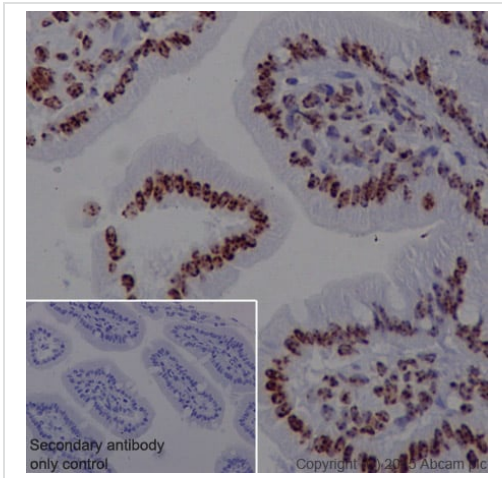
Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - ChIP Grade (ab177190)

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Histone H4 (tri methyl K20) using ab177190 at 1/8000 dilution. A Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) was used as secondary at 1/500 dilution. Nucleus staining on Human colon was observed. Counterstained with Hematoxylin. Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

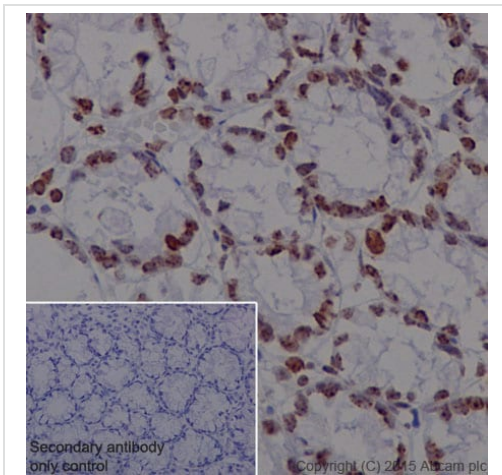


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - ChIP Grade (ab177190)

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling Histone H4 (tri methyl K20) using ab177190 at 1/8000 dilution. A Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) was used as secondary at 1/500 dilution. Nucleus staining on mouse colon was observed. Counterstained with Hematoxylin.

Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (tri methyl K20) antibody [EPR17001(2)] - ChIP Grade (ab177190)

Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling Histone H4 (tri methyl K20) using ab177190 at 1/8000 dilution. A Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) was used as secondary at 1/500 dilution. Nucleus staining on rat colon was observed. Counterstained with Hematoxylin.

Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

### Why choose a recombinant antibody?



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Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Histone H4 (tri methyl K20) antibody  
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