abcam

Product datasheet

Anti-Histone H4 (mono methyl R78) antibody [EPR19561] ab202036

יובעדער RabMAb

画像数5

製品の概要

製品名 Anti-Histone H4 (mono methyl R78) antibody [EPR19561]

製品の詳細 Rabbit monoclonal [EPR19561] to Histone H4 (mono methyl R78)

由来種 Rabbit

アプリケーション 適用あり: Dot blot, ICC/IF, WB, Flow Cyt (Intra)

種交差性 交差種: Mouse, 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 whole cell lysates. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells. Dot

blot: Histone H4 (mono methyl R78) peptide.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb patents**.

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: 0.05% BSA, 40% Glycerol (glycerin, glycerine), PBS

精製度 Protein A purified

ポリモノ モノクローナル クローン名 EPR19561

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ab202036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
Dot blot		1/1000.
ICC/IF		1/250.
WB		1/1000. Detects a band of approximately 11 kDa (predicted molecular weight: 11 kDa).
Flow Cyt (Intra)		1/60.

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

翻訳後修飾

Belongs to the histone H4 family.

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.

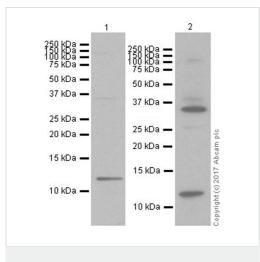
Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. Monoubiquitinated at Lys-92 of histone H4 (H4K91ub1) in response to DNA damage. The exact role of H4K91ub1 in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

細胞内局在

Nucleus. Chromosome.

画像



Western blot - Anti-Histone H4 (mono methyl R78) antibody [EPR19561] (ab202036)

All lanes : Anti-Histone H4 (mono methyl R78) antibody [EPR19561] (ab202036) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 2: NIH/3T3 (mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

Developed using the ECL technique.

Predicted band size: 11 kDa **Observed band size:** 11 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

1 2 3 4 5
5ng
0.1ng
0.1ng
0.01ng

Dot Blot - Anti-Histone H4 (mono methyl R78) antibody [EPR19561] (ab202036)

Dot blot analysis of Histone H4 (mono methyl R78) labeled with ab202036 at 1/1000 dilution.

Lane 1: Histone H4 (mono methyl R78) peptide.

Lane 2: Histone H4 (asymmetric di methyl R78) peptide.

Lane 3: Histone H4 (symmetric di methyl R78) peptide.

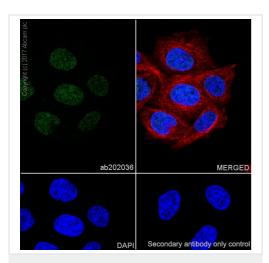
Lane 4: Histone H4 unmodified peptide.

Lane 5: Histone H4 (mono methyl K77) peptide.

Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution was used as secondary antibody.

Exposure time: 3 minutes.

Blocking and dilution buffer: 5% NFDM/TBST.

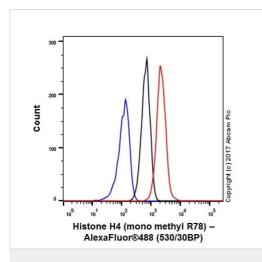


Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (mono methyl R78) antibody [EPR19561] (ab202036)

Immunofluorescent analysis of 2% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Histone H4 (mono methyl R78) with ab202036 at 1/250 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on Hela cells.

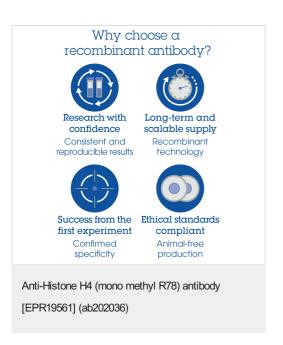
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (Alexa Fluor[®] 488) (ab150077) secondary antibody at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Histone H4 (mono methyl R78) antibody [EPR19561] (ab202036)

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed, 0.1% Tween-20 permeabilized HeLa (human epithelialcell line from cervix adenocarcinoma) cell line labeling Histone H4 (mono methyl R78) with ab202036 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluorr® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.



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