abcam

Product datasheet

Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free ab194352

リコンビナント RabMAb

3 References 画像数 16

製品の概要

製品名	Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free
製品の詳細	Rabbit monoclonal [EPR1004] to Histone H4 (acetyl K16) - BSA and Azide free
由来種	Rabbit
特異性	This antibody only detects Histone H4 acetylated on Lysine 16.
アプリケーション	**適用あり:** Flow Cyt (Intra), ChIC/CUT&RUN-seq, ICC/IF, WB, IHC-P
種交差性	**交差種:** 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, C6 and mouse spleen cell lysates - treated with TSA. IHC-P: Human testis, transitional cell carcinoma and colon tissues. ICC/IF: HeLa cells treated with TSA. Flow Cyt (intra): HeLa cells. ChIC/CUT&RUN-Seq: HeLa cells.
特記事項	ab194352 is the carrier-free version of **ab109463**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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. Do Not Freeze.
バッファー	pH: 7.20 Constituent: PBS
キャリア・フリー	はい
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR1004
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ab194352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。

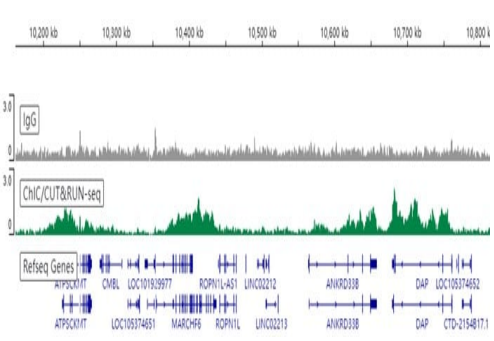
アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Predicted molecular weight: 11 kDa. Please check the parent abID, **ab109463**, for a recommended dilution.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**.

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). 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



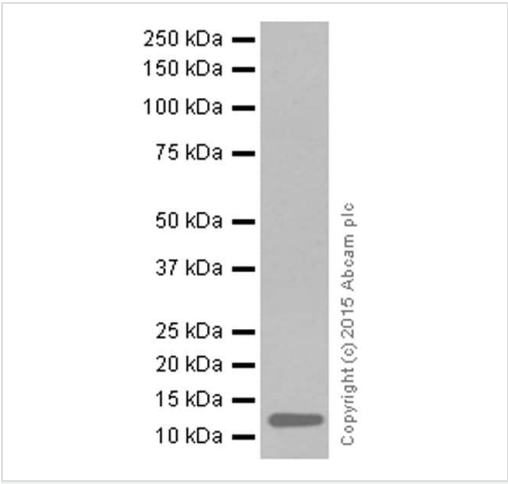
ChIC/CUT&RUN sequencing - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell line) cells and 2 µg of **ab109463** [EPR1004]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control **ab172730** is also shown.

Additional screenshots of mapped reads can be downloaded **here**.

The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).



Western blot - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352) + HeLa (human cervix adenocarcinoma) treated with Trichostatin A whole cell lysate at 10 µg

Secondary

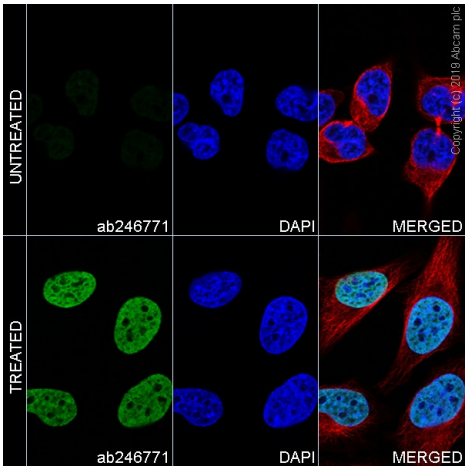
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**)

Predicted band size: 11 kDa

Exposure time: 10 seconds

Blocking buffer and concentration: 5% NFDM/TBST

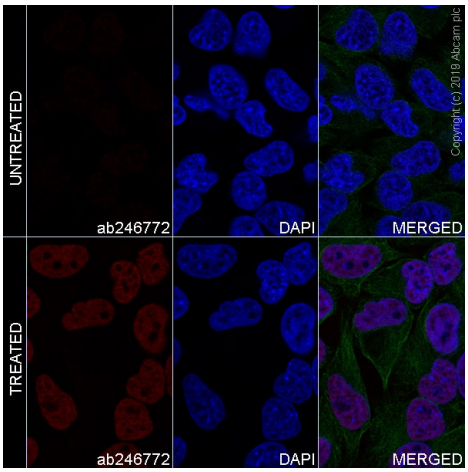
Diluting buffer and concentration: 5% NFDM/TBST



Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Clone EPR1004 (ab194352) has been successfully conjugated by Abcam. This image was generated using Anti-Histone H4 (acetyl K16) antibody [EPR1004] (Alexa Fluor® 488). Please refer to **ab246771** for protocol details.

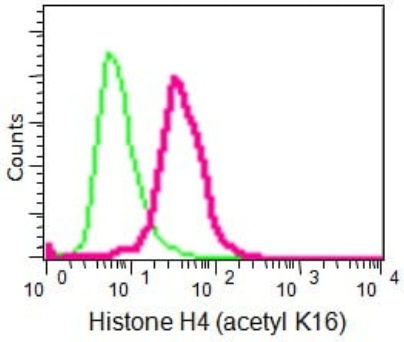
ab246771 staining Histone H4 (acetyl K16) in HeLa +/- Trichostatin A (500 ng/ml for 4h). The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4ºC with **ab246771** at 1/200 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).



Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Clone EPR1004 (ab194352) has been successfully conjugated by Abcam. This image was generated using Anti-Histone H4 (acetyl K16) antibody [EPR1004] (Alexa Fluor® 647). Please refer to **ab246772** for protocol details.

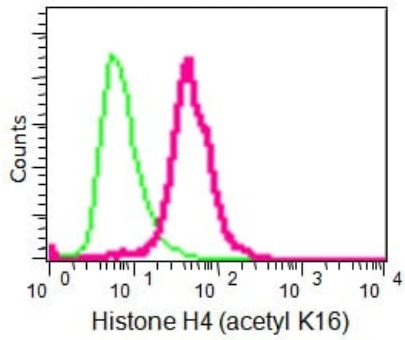
ab246772 staining Histone H4 (acetyl K16) in HeLa +/- TSA (500 ng/ml for 4h). The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4ºC with **ab246772** at 1/200 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).



Flow Cytometry (Intracellular) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Intracellular Flow Cytometry analysis of HeLa cells labelling Histone H4 (acetyl K16) with purified **ab109463** (red) at 1/200. Cells were fixed with 80% methanol. A FITC-conjugated goat anti-rabbit IgG was used as the secondary antibody (1/150). A rabbit monoclonal IgG was used as the isotype control (green).

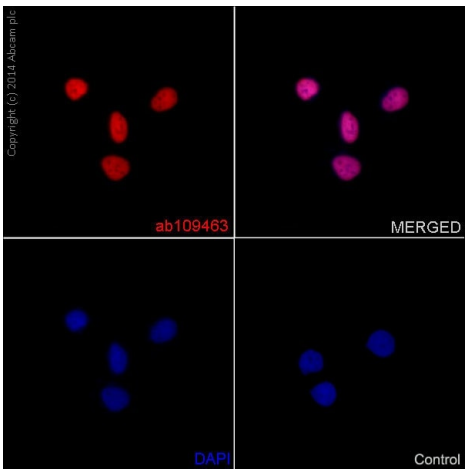
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).



Flow Cytometry (Intracellular) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Intracellular Flow Cytometry analysis of HeLa cells labelling Histone H4 (acetyl K16) with unpurified **ab109463** (red) at 1/130. Cells were fixed with 80% methanol. A FITC-conjugated goat anti-rabbit IgG was used as the secondary antibody (1/150). A rabbit monoclonal IgG was used as the isotype control (green).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

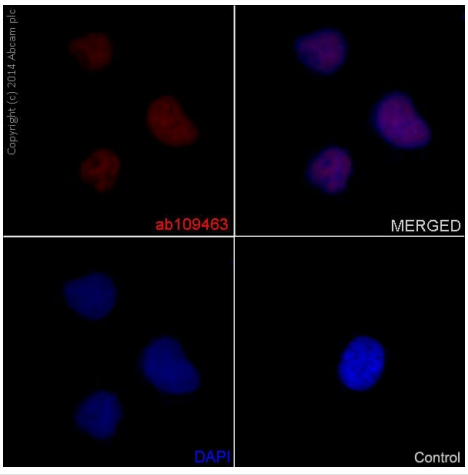


Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells treated with TSA labelling Histone H4 (acetyl K16) with purified **ab109463** (red) at 1/150. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/150) and secondary antibody **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

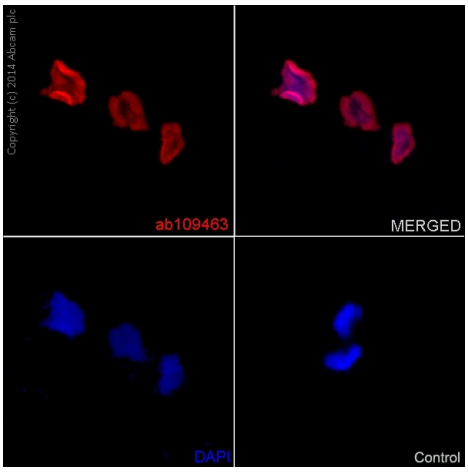


Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Histone H4 (acetyl K16) with purified **ab109463** (red) at 1/150. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/150) and secondary antibody **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

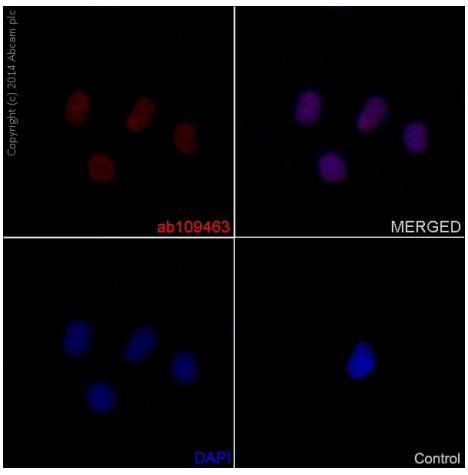


Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells treated with TSA labelling Histone H4 (acetyl K16) with unpurified **ab109463** (red) at 1/100. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/100) and secondary antibody **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

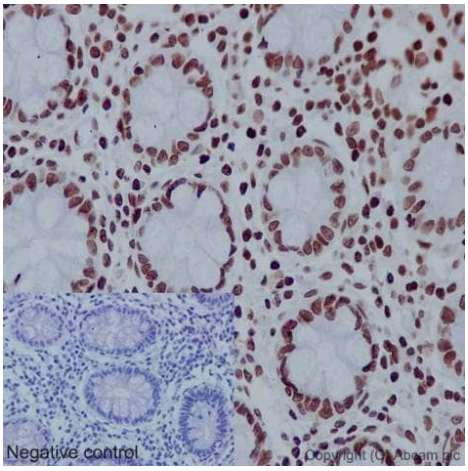


Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Histone H4 (acetyl K16) with unpurified **ab109463** (red) at 1/100. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/100) and secondary antibody **ab150120**, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

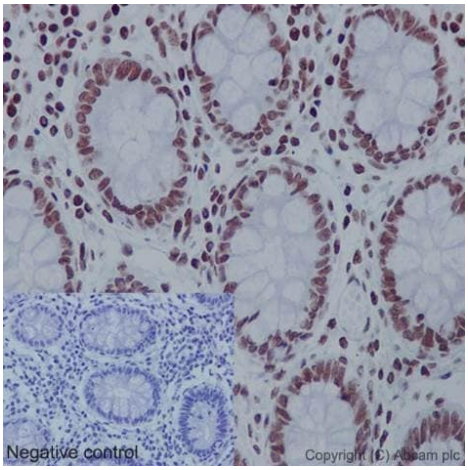
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labelling Histone H4 (acetyl K16) with purified **ab109463** at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

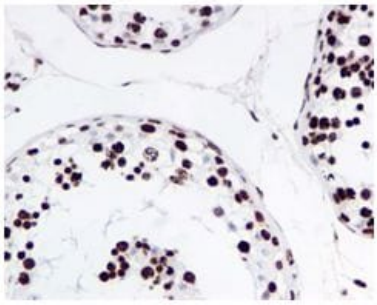
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labelling Histone H4 (acetyl K16) with unpurified **ab109463** at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

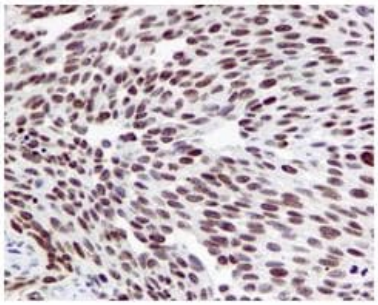


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human testis tissue labelling Histone H4 with unpurified **ab109463** at 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

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

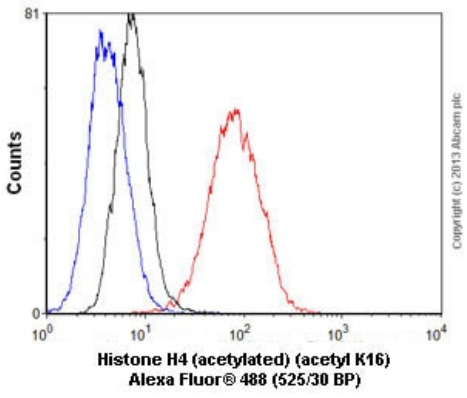


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human transitional cell carcinoma labelling Histone H4 (acetly K16) with unpurified **ab109463** at 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).

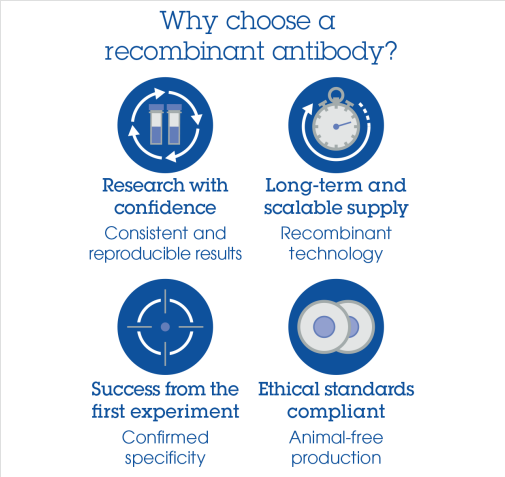
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

Overlay histogram showing HeLa cells stained with unpurified **ab109463** (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab109463**, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluorr® 488 goat anti-rabbit IgG (H+L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109463**).



Anti-Histone H4 (acetyl K16) antibody [EPR1004] - BSA and Azide free (ab194352)

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