abcam

ab177793

Anti-Histone H4 (acetyl K12) antibody [EPR17906]

Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793) is a rabbit monoclonal antibody detecting Histone H4 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF, PepArr**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR17906
Purification technique	Affinity purification Protein A
Concentration	0.772 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse

Dilution info	1/10000
Notes	-

Species	Human
Dilution info	1/10000
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

PepArr

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/2000
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	1/4000
Notes	-

Species	Human
Dilution info	1/4000
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information H4C1 acK12

Function	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.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF), Peptide Array in Human, Mouse, Rat samples.

What is the molecular weight of Histone H4?
Anti-Histone H4 (acetyl K12) [EPR17906] (ab177793) specifically detects a band for Histone H4 (UniProt: P62805) at a molecular weight of 11kDa.

Trusted by the scientific community
Anti-Histone H4 (acetyl K12) [EPR17906] (ab177793) was first used in a scientific publication in 2015 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR17906] also available for your convenience: ab177793, Alexa Fluor® 750 - ab321207

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

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

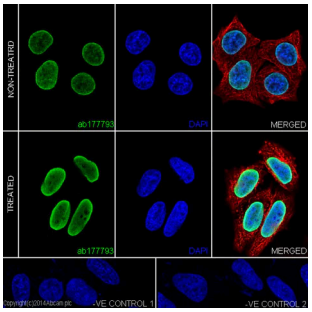
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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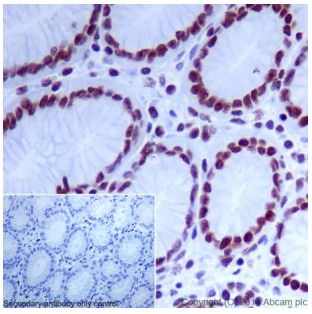
7 product images



Immunocytochemistry/ Immunofluorescence - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Histone H4 (acetyl K12) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H4 (acetyl K12) antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells treated with Trichostatin A (500 ng/ml) for 4 hours or untreated labeling Histone H4 (acetyl K12) with ab177793 at 1/2000 dilution followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green). Confocal image showing nuclear staining on HeLa cell line is observed. Acetylation level increased after treatment with Trichostatin A (500 ng/ml) for 4 hours. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows;
1. ab177793 at 1/2000 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

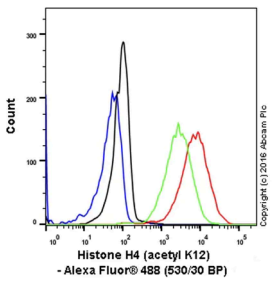


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Histone H4 (acetyl K12) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H4 (acetyl K12) antibody

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Histone H4 (acetyl K12) with ab177793 at 1/4000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Nucleus staining on Human colon tissue is observed. Counter stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

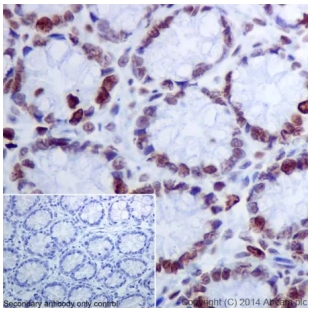
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Histone H4 (acetyl K12) Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H4 (acetyl K12) antibody

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) treated (Red)/untreated (Green) with 500ng/ml Trichostatin A for 4 hours with purified ab177793 at 1/80 dilution. The secondary antibody was Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution. A Rabbit monoclonal IgG (Black) was used as the isotype control and cells without incubation with primary antibody and secondary antibody (Blue) were used as unlabeled control.

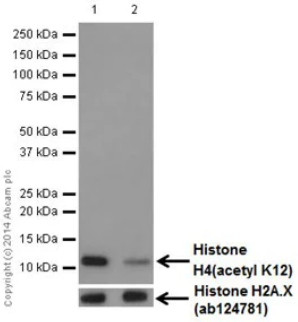


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Histone H4 (acetyl K12) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H4 (acetyl K12) antibody

Immunohistochemical analysis of paraffin-embedded Rat colon tissue labeling Histone H4 (acetyl K12) with ab177793 at 1/4000 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500. Nucleus staining on Rat colon tissue is observed. Counter stained with Hematoxylin. Negative control: Using PBS instead of primary antibody.

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



Western blot - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793) at 1/10000 dilution

Lane 1:
HeLa (Human epithelial cells from cervix adenocarcinoma) treated with 500 ng/ml Trichostatin A for 4 hours whole cell lysates at 10 µg

Lane 2:
HeLa (Human epithelial cells from cervix adenocarcinoma) untreated whole cell lysates at 10 µg

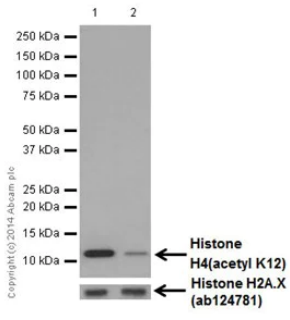
Secondary

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: 15s



Western blot - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

Blocking/Dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793) at 1/10000 dilution

Lane 1:
NIH/3T3 (Mouse embyro fibroblast cells) treated with 500 ng/ml Trichostatin A for 4 hours whole cell lysates at 10 µg

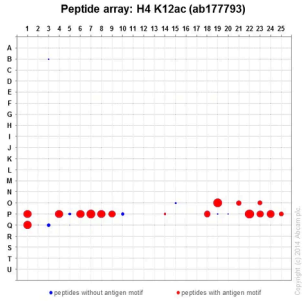
Lane 2:
NIH/3T3 (Mouse embyro fibroblast cells) untreated whole cell lysates at 10 µg

Secondary

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

Predicted band size: 11 kDa

Exposure time: 15s



Peptide Array - Anti-Histone H4 (acetyl K12) antibody [EPR17906] (ab177793)

ab177793 was tested in Peptide array against 501 different modified and unmodified histone peptides; each peptide is printed on the array at six concentrations (each in triplicate).
Circle area represents affinity between the antibody and a peptide: all antigen-containing peptides are displayed as red circles, all other peptides as blue circles. The affinity is calculated as area under curve when antibody binding values are plotted against the corresponding peptide concentration. Each circle area is normalized to the peptide with the strongest affinity.
The complete dataset, including full list of all peptides and information on the position of each peptide in the diagram, is available under the Product Protocol section.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.