abcam

ab203948

Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR12683
Purification technique	Affinity purification Protein A
Specificity	The immunogen used for this product shares 6 continuous identical amino acids with H1.4. Cross-reactivity with this protein has not been confirmed experimentally.
Concentration	0.938 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Target data

See full target information H1-3

Function	Histone H1 protein binds to linker DNA between nucleosomes forming the macromolecular structure known as the chromatin fiber (PubMed:37922872). Histones H1 are necessary for the condensation of nucleosome chains into higher-order structured fibers and promote formation of the H3K27me3 mark by the PRC2/EED-EZH2 complex (PubMed:40516528). Together with histone H1-3, histone H1-3 acts as a regulator of splicing, most specifically exon skipping and intron retention events: histone H1-3 has a high affinity for introns and regulates splicing by affecting RNA polymerase II (RNAPII) elongation (PubMed:37922872). Also acts as a regulator of individual gene transcription through chromatin remodeling, nucleosome spacing and DNA methylation (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab203948 is the carrier-free version of ab183736.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

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

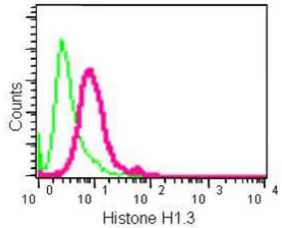
We do not recommend this combination. It is not covered by our product promise.

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.

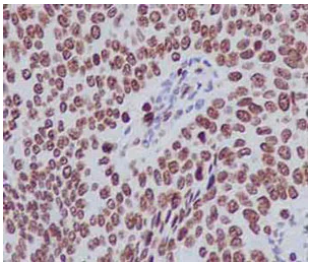
7 product images



Flow Cytometry (Intracellular) - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

Histone H1.3 Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H1.3 antibody

This data was developed using ab183736, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of HeLa cells using ab183736 at 1/10 dilution. Secondary ab: Goat anti rabbit IgG (FITC) at 1/150 dilution. Fixative: 2% paraformaldehyde. Isotype control: Rabbit monoclonal IgG.

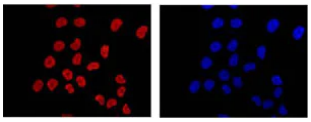


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

Histone H1.3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H1.3 antibody

This data was developed using ab183736, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling Histone H1.3 with ab183736 at 1/1000 dilution. Counter stain: Hematoxylin

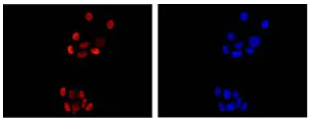
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

Histone H1.3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H1.3 antibody

This data was developed using ab183736, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of HeLa cells labeling Histone H1.3 with ab183736 at 1/500 dilution. Secondary ab: Goat anti rabbit IgG (Alexa Fluor®555) at 1/200 dilution.

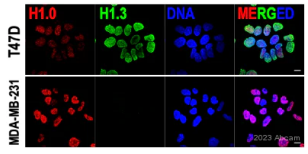


Immunocytochemistry/ Immunofluorescence - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

Histone H1.3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H1.3 antibody

This data was developed using ab183736, the same antibody clone in a different buffer formulation.
Immunofluorescence analysis of T47-D cells labeling Histone H1.3 with ab183736 at 1/500 dilution. Secondary ab: Goat anti rabbit IgG (Alexa Fluor®555) at 1/200 dilution. Fixative: 4% paraformaldehyde. Counter stain: Dapi

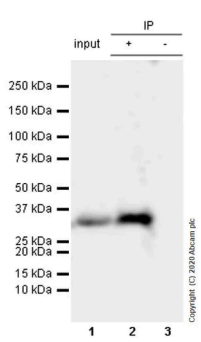
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This image is courtesy of a customer review submitted by Albert Jordan

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

Immunocytochemistry/ Immunofluorescence analysis showing positive staining of H1.3 with ab203948 at 1/500 dilution in paraformaldehyde-fixed methanol permeabilized T47D cells, but not MDA-MB-231 breast cancer cells. The sample was incubated with the primary antibody for 16 hours at 4 degrees and blocking was done using 5% BSA for 1 hour at room temperature. Alexa fluor® conjugated 488 goat anti-rabbit secondary antibody was used at 1/1000 dilution.



Immunoprecipitation - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

This data was developed using ab183736, the same antibody clone in a different buffer formulation. Anti-Histone H1.3 was immunoprecipitated from 0.35 mg of HeLa (human cervical adenocarcinoma epithelial cell), whole cell lysate with ab183736 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab183736 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution. Lane 1: Hela whole cell lysate 10 µg (Input). Lane 2: ab183736 IP in Hela whole cell lysate. Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab183736 in Hela whole cell lysate. Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 32 seconds.
All lanes:
Immunoprecipitation - Anti-Histone H1.3 antibody [EPR12683] (ab183736)

Lane 1:
Hela whole cell lysate at 10 µg

Lane 2:
Anti-Histone H1.3 antibody IP in Hela whole cell lysate

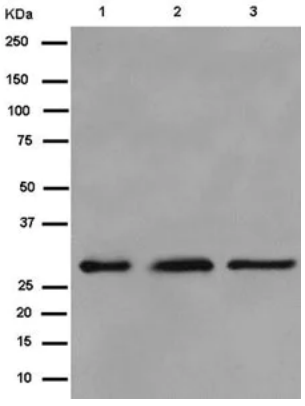
Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Predicted band size: 22 kDa

Observed band size: 30 kDa

Exposure time: 32s



Western blot - Anti-Histone H1.3 antibody [EPR12683] - BSA and Azide free (ab203948)

This data was developed using ab183736, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-Histone H1.3 antibody [EPR12683] (ab183736) at 1/5000 dilution

Lane 1:
T-47D cell lysate at 20 µg

Lane 2:
Hela cell lysate at 20 µg

Lane 3:
Jurkat cell lysate at 20 µg

Secondary

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

Predicted band size: 22 kDa

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