abcam

ab236275

Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR20970
Purification technique	Affinity purification Protein A
Concentration	1.014 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse, Human
Dilution info	-

Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant fragment - Human, Mouse, Human, Rat
Dilution info	-
Notes	-

PepArr

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information H3C1 methyl K37

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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab236275 is the carrier-free version of ab215728.

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.

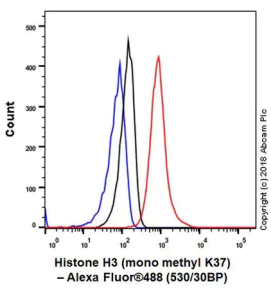
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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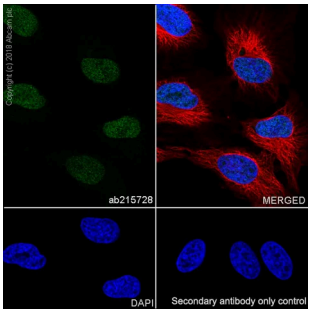
7 product images



Flow Cytometry (Intracellular) - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

Histone H3 (methyl K37) Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H3 (methyl K37) antibody

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 90% methanol permeabilized , 4% paraformaldehyde-fixed HeLa (human cervix adenocarcinoma epithelial cell) cells labeling Histone H3 (methyl K37) with ab215728 at 1/60 dilution (Red) compared withRabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 was used as the secondary antibody.



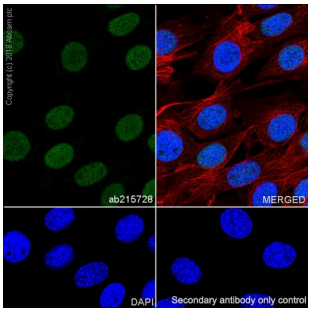
Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

Histone H3 (methyl K37) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H3 (methyl K37) antibody

This data was developed using ab215728, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized HeLa (human cervix adenocarcinoma epithelial cell line) cells labeling Histone H3 (methyl K37) with ab215728 at 1/100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining in HeLa cell line is observed. DAPI was used as the nuclear counterstain. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) was used as the counterstain antibody at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

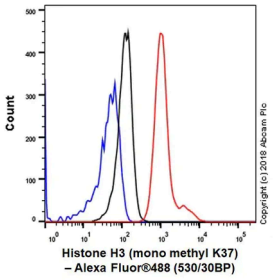


Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

Histone H3 (methyl K37) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H3 (methyl K37) antibody

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized NIH/3T3 (mouse embryonic fibroblast cell line) cells labeling Histone H3 (methyl K37) with ab215728 at 1/100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining in NIH/3T3 cell line is observed. DAPI was used as the nuclear counterstain. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) was used as the counterstain antibody at 1/200 dilution (red).

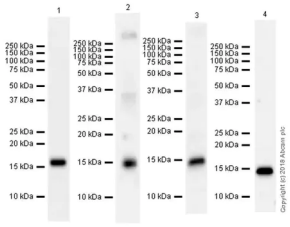
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

Histone H3 (methyl K37) Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H3 (methyl K37) antibody

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 90% methanol permeabilized , 4% paraformaldehyde-fixed NIH/3T3 (mouse embryo fibroblast cell line) cells labeling Histone H3 (methyl K37) with ab215728 at 1/60 dilution (Red) compared withRabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor®488, ab150077) at 1/2000 was used as the secondary antibody.



Western blot - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
Exposure times:
Lane 1: 26 seconds;
Lane 2: 3 minutes;

Lane 3: 81 seconds;
Lane 4: 3 minutes.

Blocking/Dilution buffer: 5% BSA/TBST
All lanes:
Western blot - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275) at 1/1000 dilution

Lane 1:
NCCIT (human pluripotent embryonic carcinoma epithelial cell) whole cell lysate at 10 µg

Lane 2:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 10 µg

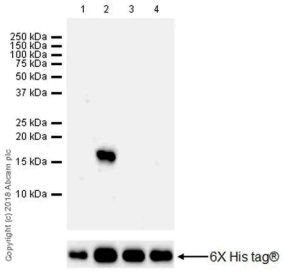
Lane 3:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 10 µg

Lane 4:
PC-12 (rat adrenal gland pheochromocytoma) whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 15 kDa



Western blot - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
Blocking/Dilution buffer: 5% NFDM/TBST.

The recombinant proteins were His-tagged.

All lanes:
Western blot - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275) at 1/1000 dilution

Lane 1:
Unmodified recombinant H3 10 ng

Lane 2:
Recombinant mutant H3 chemically modified to mimic H3K37Me, 10ng

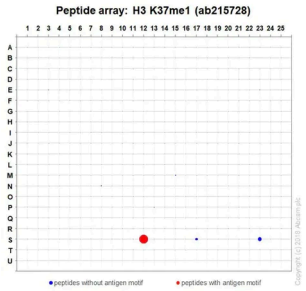
Lane 3:
Recombinant mutant H3 chemically modified to mimic H3K37Me2 10 ng

Lane 4:
Recombinant mutant H3 chemically modified to mimic H3K37Me3 10 ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 15 kDa



Peptide Array - Anti-Histone H3 (methyl K37) antibody [EPR20970] - BSA and Azide free (ab236275)

This data was developed using ab215728, the same antibody clone in a different buffer formulation.
ab215728 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).

Blocking buffer: 5% BSA in TBST.

Primary antibody concentration: 0.1 µg/ml.

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'.