abcam

ab308249

Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR23553-22
Purification technique	Affinity purification Protein A

Reactivity data

WB

Tested

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

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Recombinant fragment - Human, Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human, Synthetic peptide

Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human, Synthetic peptide
Dilution info	-
Notes	-

PepArr

Tested

Species	Synthetic peptide
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Recombinant fragment - Human
Dilution info	-
Notes	-

ChIC/CUT&RUN-seq

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, Synthetic peptide
Dilution info	-
Notes	-

ChIP-seq

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, Synthetic peptide
Dilution info	-
Notes	-

IP

Not recommended

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

Target data

See full target information H3C1 unmod K27

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

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

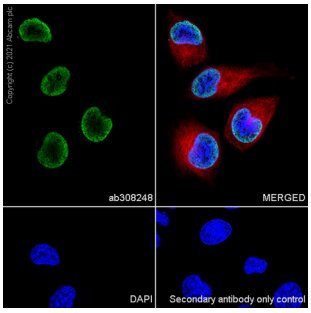
We do not recommend this combination. It is not covered by our product promise.

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.

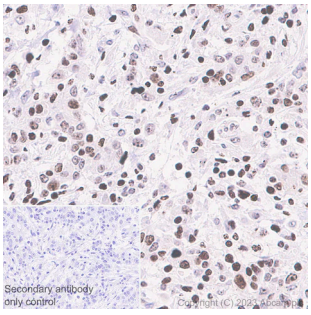
Full details and terms and conditions can be found here:
Terms & Conditions.

20 product images



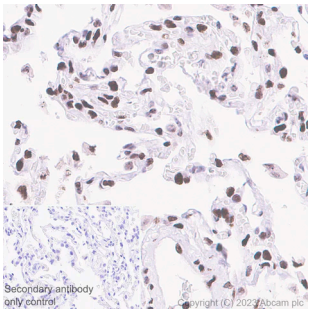
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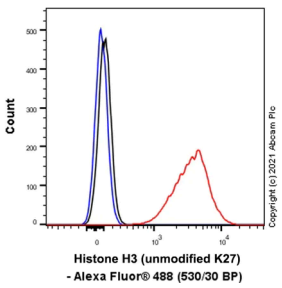
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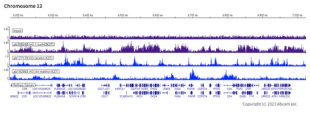
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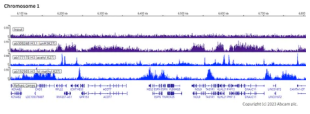
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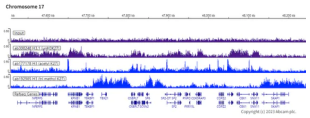
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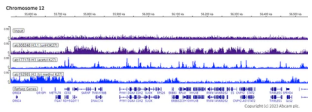
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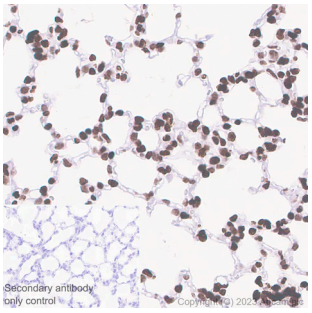
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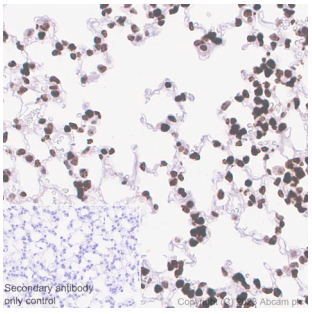
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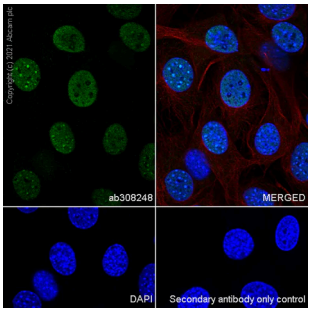
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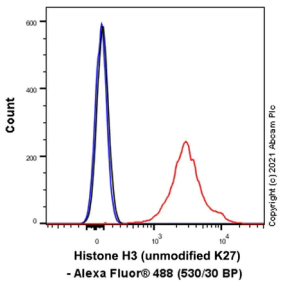
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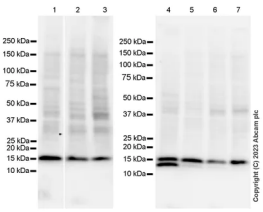
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Western blot - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] - BSA and Azide free (ab308249)

Histone H3 (unmodified K27) Western blot staining using rabbit Anti-Histone H3 (unmodified K27) antibody

This data was developed using ab308248, the same antibody clone in a different buffer formulation. Blocking and diluting buffer and concentration: 1% BSA/TBST Lysates were freshly made and used for Western blotting immediately to minimize protein degradation. Exposure time: Lane 1-3: 26 seconds, lane 4-7: 15 seconds
All lanes:
Western blot - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] (ab308248) at 1/1000 dilution

Lane 1:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 3:
PC-12 (rat adrenal gland pheochromocytoma cell) whole cell lysate at 20 µg

Lane 4:
THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

Lane 5:
Jurkat (human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

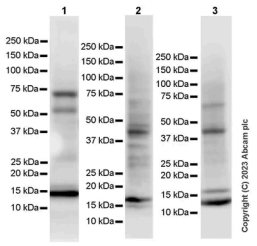
Lane 6:
RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 7:
2.4G2 (rat B cell lymphoma B lymphocyte) whole cell lysate at 20 µg

Secondary

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

Observed band size: 15 kDa



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Histone H3 (unmodified K27) Western blot staining using rabbit Anti-Histone H3 (unmodified K27) antibody

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All lanes:
Western blot - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] (ab308248) at 1/1000 dilution

Lane 1:
Human spleen tissue lysate at 20 µg

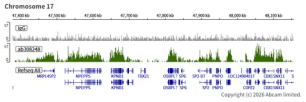
Lane 2:
Mouse spleen tissue lysate at 20 µg

Lane 3:
Rat spleen tissue lysate at 20 µg

Secondary

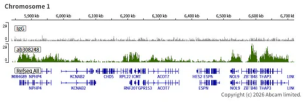
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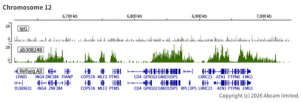
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ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (human cervical adenocarcinoma epithelial cell) cells and 5 µg of ab308248 [EPR23553-22]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



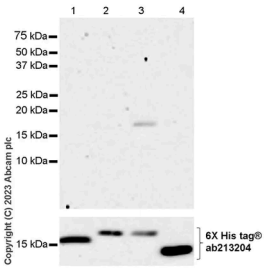
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Histone H3 (unmodified K27) Western blot staining using rabbit Anti-Histone H3 (unmodified K27) antibody

This data was developed using ab308248, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

This antibody does not cross-react with human H2A, H2B and H4C1.

This blot was developed using a high sensitivity ECL substrate. The high-sensitivity ECL substrate used allows for the detection of proteins in the mid-femtogram range.

In Western blot, anti-His antibody (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] (ab308248) at 1/1000 dilution

Lane 1:
His tagged Human H2A recombinant protein at 100 ng

Lane 2:
His tagged Human H2B recombinant protein at 100 ng

Lane 3:
His tagged Human H3C1 recombinant protein at 50 ng

Lane 4:
His tagged Human H4C1 recombinant protein at 200 ng

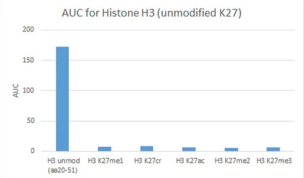
Secondary

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

Developed using the ECL technique.

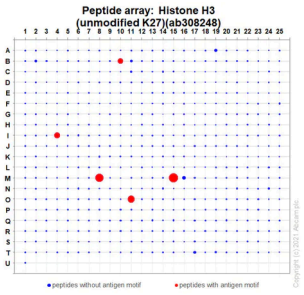
Observed band size: 15 kDa

Exposure time: 180s



Peptide Array - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] - BSA and Azide free (ab308249)

This data was developed using ab308248, the same antibody clone in a different buffer formulation. Peptide array analysis of ab308248 at (0.1ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Fluo 647nm conjugated at 1:50,000 dilution. The affinity of ab308248 to the un-modified Histone H3 K27 sequence and peptides modified at K27 from our peptide array are shown here as a histogram. AUC stands for Area under Curve.



Peptide Array - Anti-Histone H3 (unmodified K27) antibody [EPR23553-22] - BSA and Azide free (ab308249)

This data was developed using ab308248, the same antibody clone in a different buffer formulation. Peptide array analysis of ab308248 at (0.1ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Fluo 647nm conjugated at 1:50,000 dilution. ab308248 has been 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 the area under the 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'.