abcam

ab92628

Anti-Histone H3.3 (phospho S31) antibody [EPR1873]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR1873
Purification technique	Affinity purification Protein A
Concentration	0.627 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250

Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

IP

Not recommended

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

Dot

Tested

Species	Synthetic peptide
Dilution info	1/1000
Notes	-

Expected

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

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide
Dilution info	-
Notes	-

Target data

See full target information H3-3A pS31

Function	Variant histone H3 which replaces conventional H3 in a wide range of nucleosomes in active genes. Constitutes the predominant form of histone H3 in non-dividing cells and is incorporated into chromatin independently of DNA synthesis.

Deposited at sites of nucleosomal displacement throughout transcribed genes, suggesting that it represents an epigenetic imprint of transcriptionally active chromatin. 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 conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°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.

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.

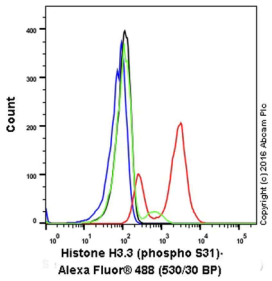
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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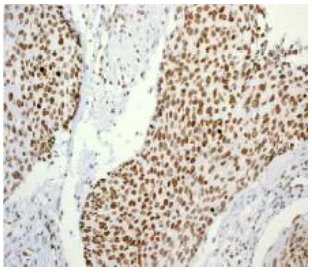
7 product images



Flow Cytometry (Intracellular) - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Histone H3.3 (phospho S31) Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H3.3 (phospho S31) antibody

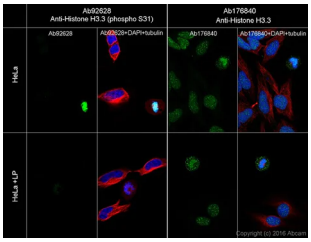
Intracellular Flow Cytometry analysis of Hela (human cervix adenocarcinoma) cells treated with 100 ng/ml Nocodazole for 18 hours, labeling Histone H3.3 with purified ab92628 at 1/150 dilution (10µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti-rabbit IgG (Alexa Fluorr® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control. Untreated control - Hela (human cervix adenocarcinoma) cells untreated with 100 ng/ml Nocodazole for 18 hours (Green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Histone H3.3 (phospho S31) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H3.3 (phospho S31) antibody

Paraffin-embedded human cervical carcinoma labelled with ab92628 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

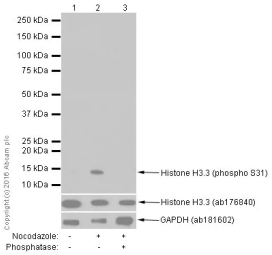


Immunocytochemistry/ Immunofluorescence - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Histone H3.3 (phospho S31) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H3.3 (phospho S31) antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% tritonX-100 HeLa (Human epithelial cell line from cervix adenocarcinoma) cells, LP treated and non-treated, labeling anti-Histone H3.3 (phospho S31) with ab92628 at 1/500 dilution followed by Goat anti-Rabbit secondary IgG Alexa Fluor® 488 (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear staining on M phase of HeLa cells, then the signal decreased after LP treatment.

For the pan antibody, there was no great difference after LP treatment. The data showed mostly nuclear staining.



Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Histone H3.3 (phospho S31) Western blot staining using rabbit Anti-Histone H3.3 (phospho S31) antibody

Blocking/dilution buffer: 2% BSA/TBST
All lanes:
Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628) at 1/1000 dilution

Lane 1:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 15 µg

Lane 2:
Whole cell lysate from HeLa (Human epithelial cell line from cervix adenocarcinoma) cells treated with 100ng/ml of nocodazole for 18 hours at 15 µg

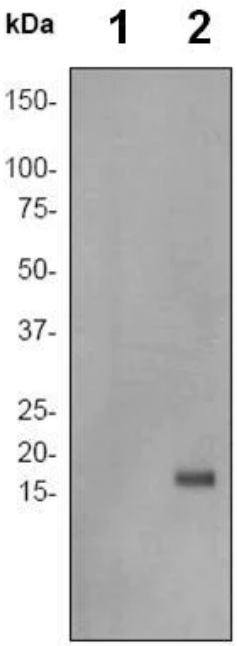
Lane 3:
Whole cell lysate from HeLa (Human epithelial cell line from cervix adenocarcinoma) cells treated with 100ng/ml of nocodazole for 18 hours. Membrane incubated with phosphatase at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 15 kDa

Exposure time: 15s



Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

All lanes:
Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628) at 1/1000 dilution

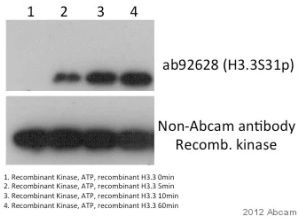
Lane 1:
HeLa cell lysate untreated at 10 µg

Lane 2:
HeLa cell lysate treated with Calyculin A at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 15 kDa



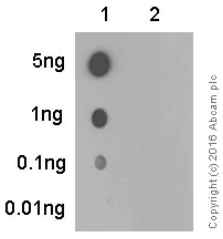
This image is courtesy of an anonymous customer review

Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Representative western blot detecting Histone H3.3 (phospho S31) using ab92628 at 1/3000 dilution.

Recombinant Histone H3.3 protein was treated with recombinant kinase and 200 µM ATP for the indicated times. 0.2 µg of protein was loaded to each lane and phosphorylated Histone H3.3 was detected using ab92628. An HRP-conjugated goat anti-rabbit polyclonal (1/20000) was used as the secondary antibody
All lanes:
Western blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Predicted band size: 15 kDa



Dot Blot - Anti-Histone H3.3 (phospho S31) antibody [EPR1873] (ab92628)

Dot Blot analysis of **Lane 1**: Histone H3.3 (pS31) phospho peptide and **Lane 2**: Histone H3.3 non-phospho peptide labeling Histone H3.3 (phospho S31) with ab92628 at 1/1000 dilution. 5% NFDM/TBST was used as the diluting and blocking buffer.
ab97051 Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as the secondary antibody at 1/100000 dilution. Exposure time: 10 seconds.

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