abcam

ab282284

Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - 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
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR24060-36
Purification technique	Affinity purification Protein A
Concentration	1.032 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	Synthetic peptide - Human
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

ChIP

Not recommended

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

WB

Tested

Species	Rat, Mouse, Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide - Human

Dilution info	-
Notes	-

PepArr

Tested

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Synthetic peptide - Human
Dilution info	-
Notes	-

Target data

See full target information H3C1 phospho S10

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

ab282284 is the carrier-free version of ab267372.

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

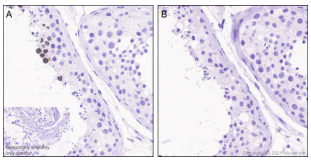
We do not recommend this combination. It is not covered by our product promise.

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.

10 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

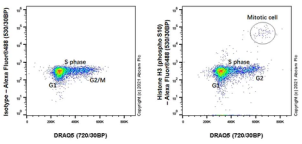
Histone H3 (phospho S10) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded human testis tissue labelling Histone H3 (phospho S10) with ab267372 at 1/100 (5.4 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human testis without alkaline phosphatase treatment (image A). No signal was detected when tissues were treated with alkaline phosphatase (image B). The section was incubated with ab267372 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

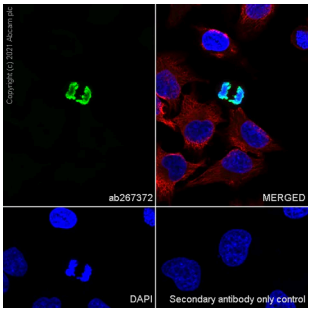


Flow Cytometry - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Flow Cytometry staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HeLa (Human cervix adenocarcinoma cell) cells labelling Histone H3 (phospho S10) with ab267372 at 1/500 dilution (0.1µg)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Cells were co-stained with DRAQ5 to differentiate cell cycle phase.

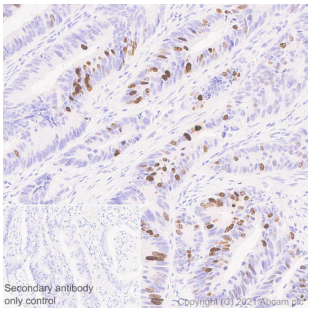


Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labelling Histone H3 (phospho S10) with ab267372 at 1/1000 (0.54 µg/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in HeLa cells in M phase. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



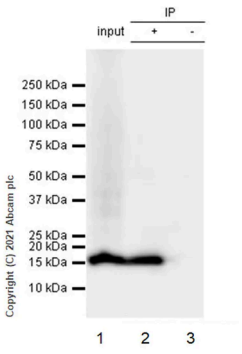
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue labelling Histone H3 (phospho S10) with ab267372 at 1/100 (5.4 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human colon carcinoma. The section was incubated with ab267372 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Immunoprecipitation - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Histone H3 (phospho S10) was immunoprecipitated from 0.35 mg HeLa (human cervix adenocarcinoma epithelial cell) treated with 100nM calyculin A for 30 minutes, whole cell lysate 20 µg with ab267372 at 1/30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab267372 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: HeLa treated with 100nM calyculin A for 30 minutes, whole cell lysate 20 µg

Lane 2: ab267372 IP in HeLa treated with 100nM calyculin A for 30 minutes whole cell lysate

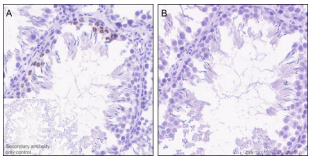
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab267372 in HeLa treated with 100nM calyculin A for 30 minutes whole cell lysate

Blocking and dilution buffer and concentration: 5% BSA/TBST

Exposure time: 5.5 seconds

All lanes:
Immunoprecipitation - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] (ab267372)

Predicted band size: 15 kDa



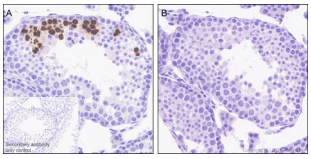
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded rat testis tissue labelling Histone H3 (phospho S10) with ab267372 at 1/5000 (0.108 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on rat testis without alkaline phosphatase treatment (image A). No signal was detected when tissues were treated with alkaline phosphatase (image B). The section was incubated with ab267372 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



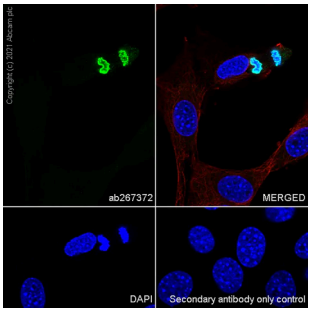
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded mouse testis tissue labelling Histone H3 (phospho S10) with ab267372 at 1/5000 (0.108 µg/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on mouse testis without alkaline phosphatase treatment (image A). No signal was detected when tissues were treated with alkaline phosphatase (image B). The section was incubated with ab267372 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

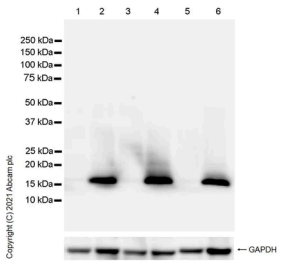


Immunocytochemistry/ Immunofluorescence - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 cells labelling Histone H3 (phospho S10) with ab267372 at 1/1000 (0.54 µg/ml) dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing nuclear staining in NIH/3T3 cells in M phase. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Western blot - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

Histone H3 (phospho S10) Western blot staining using rabbit Anti-Histone H3 (phospho S10) antibody

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% BSA/TBST

Exposure time: 3 seconds

All lanes:
Western blot - Anti-Histone H3 (phospho S10) antibody [EPR24060-36] (ab267372) at 1/1000 dilution

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

Lane 2:
HeLa treated with 100nM calyculin A for 30 min, whole cell lysate at 20 µg

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

Lane 4:
NIH/3T3 treated with 100nM calyculin A for 30 min, whole cell lysate at 20 µg

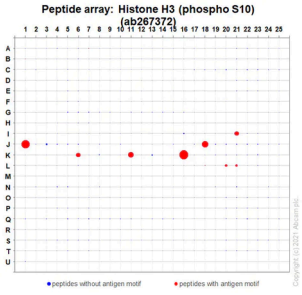
Lane 5:
C6 (rat glial tumor glial cell), whole cell lysate at 20 µg

Lane 6:
C6 treated with 100nM calyculin A for 30 min, whole cell lysate at 20 µg

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 (phospho S10) antibody [EPR24060-36] - BSA and Azide free (ab282284)

This data was developed using ab267372, the same antibody clone in a different buffer formulation.
Peptide array analysis of ab267372 at (0.02µg/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Fluo 647nm conjugated at 1/50,000 dilution.

All batches of ab267372 are 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.

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