abcam

ab150402

Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	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	EPR6171(2)(B)
Purification technique	Affinity purification Protein A
Concentration	1.803 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	**For unpurified format use at 1/250 - 1/500 dilution.**

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

Species	Rat
Dilution info	1/2000
Notes	**For unpurified format use at 1/250 - 1/500 dilution.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/2000
Notes	**For unpurified format use at 1/250 - 1/500 dilution.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ChIP

Tested

Species	Human
Dilution info	2 µg for 25 µg chromatin
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Expected

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

ICC/IF

Tested

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

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/2500
Notes	-

Expected

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

Target data

See full target information H2AZ1

Function	Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. 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. May be involved in the formation of constitutive heterochromatin. May be required for chromosome segregation during cell division.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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.

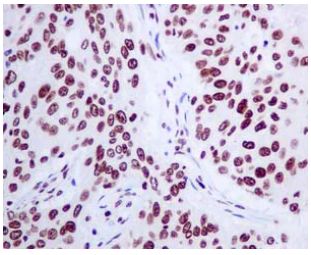
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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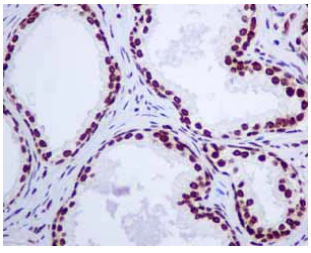
18 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue labeling Histone H2A.Z with ab150402 (unpurified) at 1/250 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

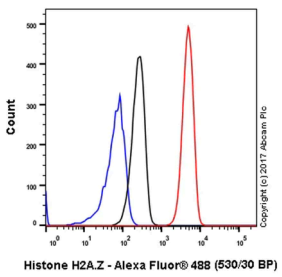


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemical analysis of paraffin embedded human prostate hyperplasia tissue using ab150402 showing positive staining.

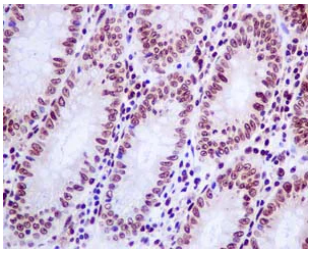
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Flow Cytometry (Intracellular) staining using rabbit Anti-Histone H2A.Z antibody

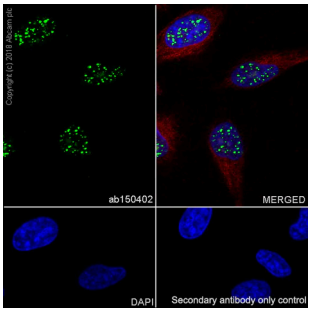
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Histone H2A.Z (red) with purified ab150402 at a 1/2500 dilution. Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

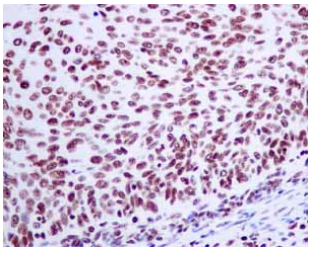
Immunohistochemical analysis of paraffin-embedded human colon tissue labeling Histone H2A.Z with ab150402 (unpurified) at 1/250 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H2A.Z antibody

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Histone H2A.Z with purified ab150402 at 1/200 dilution (10 µg/ml). Cells were fixed in 100% Methanol. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

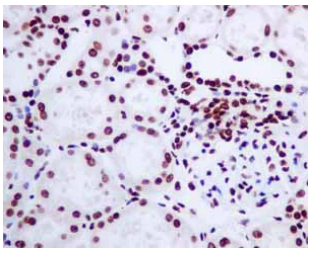


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemical analysis of paraffin embedded human cervical carcinoma tissue using ab150402 (unpurified) showing positive staining.

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

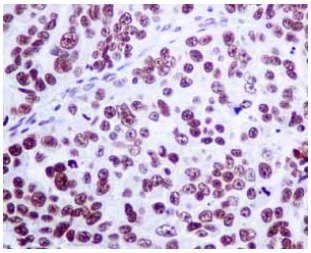


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemical analysis of paraffin embedded normal human kidney tissue using ab150402 (unpurified) showing positive staining.

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

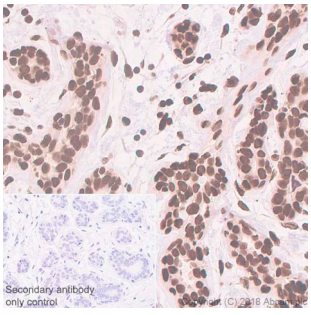


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemical analysis of paraffin embedded human ovarian carcinoma tissue using ab150402 (unpurified) showing positive staining.

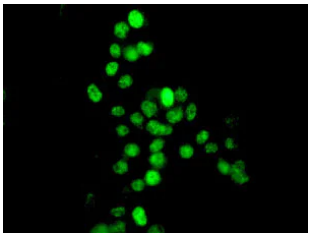
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

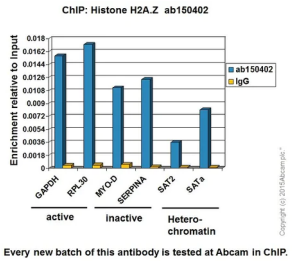
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast tissue sections labeling Histone H2A.Z with purified ab150402 at 1/2000 dilution (1.09 µg/ml). Heat mediated antigen retrieval was performed using heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

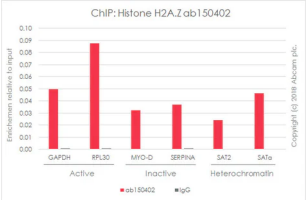
Histone H2A.Z Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Histone H2A.Z antibody

Immunofluorescent analysis of HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling Histone H2A.Z with ab150402 (unpurified) at 1/100 dilution.



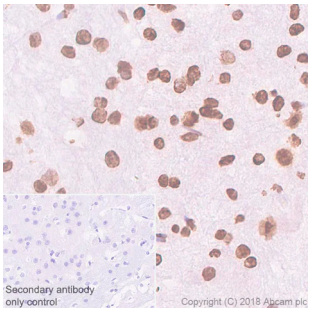
ChIP - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Chromatin was prepared from HeLa (Human epithelial cell line from cervix adenocarcinoma) cells according to the Abcam X-ChIP protocol. Cells were fixed with formaldehyde for 10 minutes. The ChIP was performed with 25µg of chromatin, 2µg of ab150402 (unpurified) (blue), and 20µl of Anti rabbit IgG sepharose beads. 2µg of rabbit normal IgG was added to the beads control (yellow). The immunoprecipitated DNA was quantified by real time PCR (Sybr green approach). Primers and probes are located in the first kb of the transcribed region.



ChIP - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

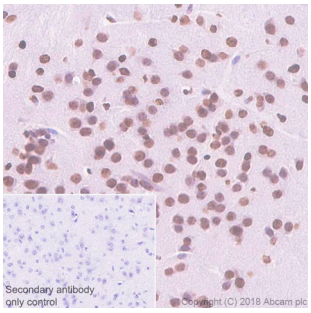
Chromatin was prepared from HeLa cells according to the Abcam Dual-X-ChIP protocol. Cells were fixed with formaldehyde for 10 minutes.
The ChIP was performed with 25 µg of chromatin, 2 µg of ab150402 (red), and 20 µl of Protein A/G sepharose beads. 2 µg of rabbit normal IgG was added to the beads control (gray). The immunoprecipitated DNA was quantified by real time PCR (Taqman approach for active and inactive loci, Sybr green approach for heterochromatic loci).
Primers and probes are located in the first kb of the transcribed region.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

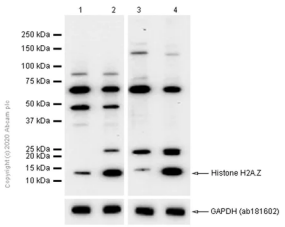
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat cerebrum tissue sections labeling Histone H2A.Z with purified ab150402 at 1:2000 dilution (1.09 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2A.Z antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse cerebrum tissue sections labeling Histone H2A.Z with purified ab150402 at 1/2000 dilution (1.09 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z Western blot staining using rabbit Anti-Histone H2A.Z antibody

Blocking buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402) at 1/1000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates prepared in RIPA lysis method at 15 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates prepared in 1% SDS Hot lysis method at 15 µg

Lane 3:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates prepared in RIPA lysis method at 15 µg

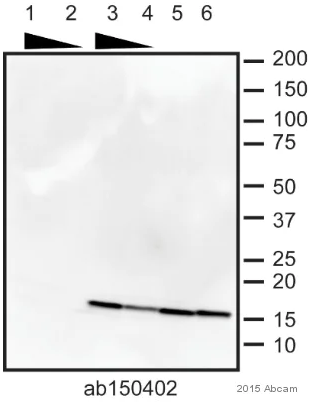
Lane 4:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates prepared in 1% SDS Hot lysis method at 15 µg

Secondary

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

Predicted band size: 14 kDa

Observed band size: 13 kDa



This image is courtesy of a customer review submitted by Ragnhild Eskeland

Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

All lanes:
Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402) at 1/1000 dilution

Lane 1:
Recombinant Human octamers containing H2A at 1 µg

Lane 2:
Recombinant Human octamers containing H2A at 0.5 µg

Lane 3:
Native recombinant octamers K562 cells at 3 µg

Lane 4:
Native recombinant octamers K562 cells at 1.5 µg

Lane 5:
Recombinant Human octamers containing H2A.Z.2.1 at 0.5 µg

Lane 6:
Recombinant Human octamers containing H2A.Z.1 at 0.5 µg

Secondary

All lanes:
HRP-conjugated donkey anti-rabbit IgG polyclonal at 1/10000 dilution

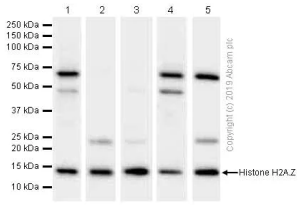
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 14 kDa

Observed band size: 15 kDa

Exposure time: 5min



Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

All lanes:
Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402) at 1/5000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Lane 2:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates at 15 µg

Lane 3:
Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysates at 15 µg

Lane 4:
RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysates at 15 µg

Lane 5:
C6 (Rat glial tumor glial cell) whole cell lysates at 15 µg

Secondary

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

Predicted band size: 14 kDa

Observed band size: 13 kDa

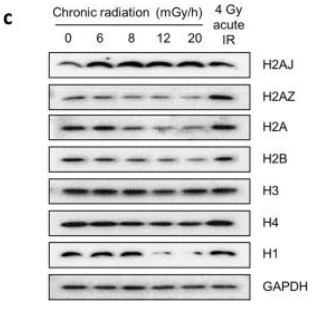


Image collected and cropped by CiteAb under a

Western blot - Anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade (ab150402)

Histone H2A.Z western blot using anti-Histone H2A.Z antibody [EPR6171(2)(B)] - ChIP Grade ab150402. Publication image and figure legend from Lowe, D. J., Herzog, M., et al., 2020, Sci Rep, PubMed 32042076.

ab150402 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab150402 please see the product overview.

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Chronic γ-radiation reduces histone levels. (a) Western blot analyses of histone H2AX and γH2AX in primary fibroblasts exposed to various dose-rates of chronic γ-radiation for 7 days. Cells irradiated with a single acute dose of 4 Gy X-ray were included as control. (b) Effect of chronic γ-irradiation on H2AX levels in three different isogenic primary cell types from a different donor to that used in (a) at the same dose rates as in (a). (c) Immunoblots of other histones in chronically irradiated primary fibroblasts. (d) All significant histone level changes detected by SILAC LC-MS/MS protein analyses of samples from primary fibroblasts exposed or mock-exposed to chronic γ-radiation for 7 days.

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