abcam

ab313789

Anti-Histone H2B (mutated E76K) antibody [EPR27298-41]

Recombinant | RabMAb | 20ul selling size

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
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR27298-41
Purification technique	Affinity purification Protein A
Concentration	0.512 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Dot

Tested

Species	Synthetic peptide
Dilution info	1/1000
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Synthetic peptide, Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide, Transfected cell line - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Transfected cell line - Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide, Transfected cell lysate - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/4000
Notes	-

Predicted

Species	Human

Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide, Transfected cell lysate - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	1/50
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Synthetic peptide, Transfected cell lysate - Human
Dilution info	-
Notes	-

Target data

See full target information H2BC4 E76K

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. Has broad antibacterial activity. May contribute to the formation of the functional antimicrobial barrier of the colonic epithelium, and to the bactericidal activity of amniotic fluid.

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.

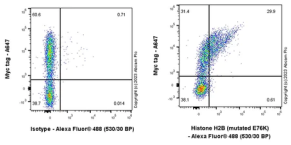
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

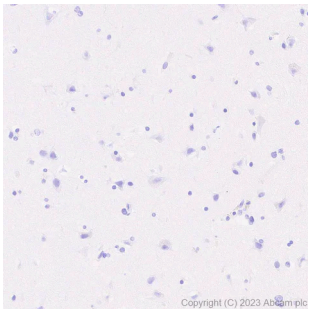
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8 product images



Flow Cytometry (Intracellular) - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

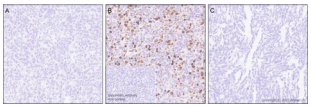
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized 293T cells transfected with a human H2BC4 WT expression vector containing a myc tag (Left) / 293T cells transfected with a human H2BC4 E76K expression vector containing a myc tag (Right) cells labelling Histone H2B (mutated E76K) with ab313789 at 1/50 dilution (1ug)/ Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

Histone H2B (mutated E76K) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum using rabbit Anti-Histone H2B (mutated E76K) antibody

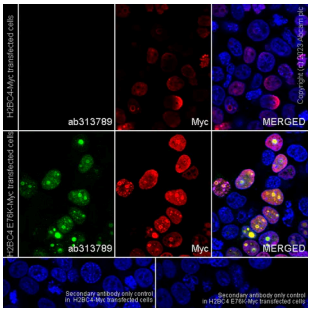
Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling Histone H2B (mutated E76K) with ab313789 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: No staining on human cerebrum.The section was incubated with ab313789 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 was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

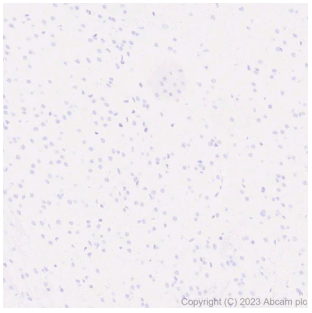
Histone H2B (mutated E76K) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Histone H2B (mutated E76K) antibody

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human tissue labeling Histone H2B (mutated E76K) with ab313789 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on (B) HEK-293T transfected with a human H2BC4 E76K expression vector containing a his tag. No staining on (A) HEK-293T transfected with a human H2BC4 (WT) expression vector containing a his tag and (C) HEK-293T transfected with empty vector containing a his tag. The section was incubated with ab313789 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

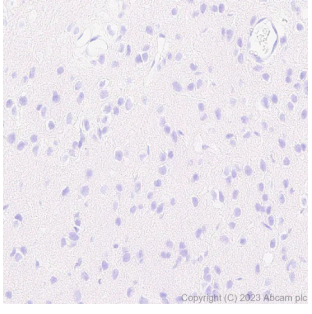
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling Histone H2B (mutated E76K) with ab313789 at 1/4000 (0.135 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing nuclear staining in 293T cells transfected with a human H2BC4 E76K expression vector containing a myc tag, and showing no staining in 293T cells transfected with a human wildtype H2BC4 expression vector containing a myc tag. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). Myc-Tag Mouse mAb (Alexa Fluor® 647) was used to counterstain tubulin at 1/100 0.38 ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

Histone H2B (mutated E76K) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-Histone H2B (mutated E76K) antibody

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling Histone H2B (mutated E76K) with ab313789 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Negative control: No staining on mouse cerebrum. The section was incubated with ab313789 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 was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

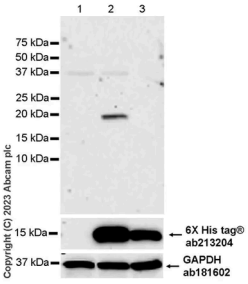


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

Histone H2B (mutated E76K) Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using rabbit Anti-Histone H2B (mutated E76K) antibody

Immunohistochemical analysis of paraffin-embedded rat cerebrum tissue labeling Histone H2B (mutated E76K) with ab313789 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800

(Bond™ Polymer Refine Detection). Negative control: No staining on rat cerebrum. The section was incubated with ab313789 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 was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Western blot - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The identity of the higher MW band at approximately 37 kDa is unknown. In Western blot, anti-His antibody (ab213204) staining at 1/5000 dilution. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 180 seconds
All lanes:
Western blot - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a His-tag whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human H2BC4 E76K expression vector containing a His-tag whole cell lysate at 16 µg

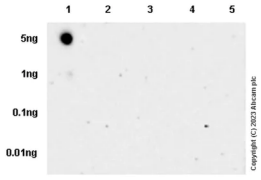
Lane 3:
293T cells transfected with a human H2BC4 (WT) expression vector containing a His-tag whole cell lysate at 20 µg

Secondary

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

Observed band size: 20 kDa

Exposure time: 180s



Dot Blot - Anti-Histone H2B (mutated E76K) antibody [EPR27298-41] (ab313789)

Dot blot analysis of Histone H2B (mutated E76K) using ab313789 at 1:1000 (0.512 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution. Lane 1: Histone H2BE76K peptide Lane 2: Histone H2BE76Q peptide Lane 3: Histone H2BG53D peptide Lane 4: Histone H2BE113K peptide Lane 5: Histone H2BE76 peptide Exposure time: 180 seconds Blocking and diluting buffer and concentration: 5% NFDM/TBST

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