abcam

Product datasheet

Anti-Histone H1.0 antibody [EPR6537] ab125027

KO VALIDATED Recombinant RabMAb

14 References 9 Images

Overview

Product name	Anti-Histone H1.0 antibody [EPR6537]
Description	Rabbit monoclonal [EPR6537] to Histone H1.0
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide within Human Histone H1.0 aa 150 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: **P07305**
Positive control	WB: A431 and BxPC3 cell lysates, and fetal human lung lysates IHC-P: Human kidney, pancreas, and thyroid tissues. ICC/IF: BxPC-3 and A431 cells.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6537
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab125027 in the following tested applications.

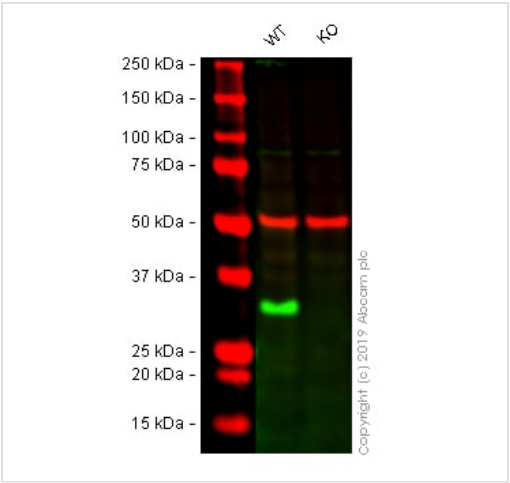
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 32 kDa (predicted molecular weight: 21 kDa).
IHC-P		1/100 - 1/400. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

Target

Function	Histones H1 are necessary for the condensation of nucleosome chains into higher-order structures. The H1F0 histones are found in cells that are in terminal stages of differentiation or that have low rates of cell division.
Sequence similarities	Belongs to the histone H1/H5 family. Contains 1 H15 (linker histone H1/H5 globular) domain.
Post-translational modifications	Phosphorylated on Ser-17 in RNA edited version.
Cellular localization	Nucleus. Chromosome. The RNA edited version has been localized to nuclear speckles. During mitosis, it appears in the vicinity of condensed chromosomes.

Images



Western blot - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

All lanes : Anti-Histone H1.0 antibody [EPR6537] (ab125027) at 1/1000 dilution

Lane 1 : Wild-type A431 (Human epidermoid carcinoma cell line) whole cell lysate
Lane 2 : H1F0 knockout A431 (Human epidermoid carcinoma cell line) whole cell lysate

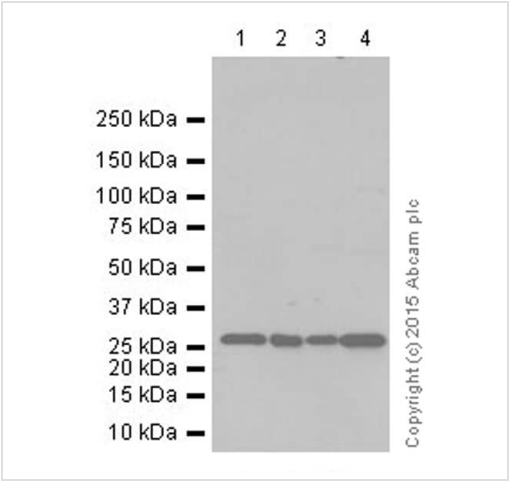
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 21 kDa
Observed band size: 33 kDa

Lanes 1 - 2: Merged signal (red and green). Green - ab125027 observed at 33 kDa. Red - loading control, **ab7291** (Mouse anti-Alpha Tubulin [DM1A] observed at 55kDa.

ab125027 was shown to react with H1F0 in A431 wild-type cells in Western blot. Loss of signal was observed when H1F0 knockout sample was used. A431 wild-type and H1F0 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% Milk in TBS-T (0.1% Tween®) before incubation with ab125027 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A] overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

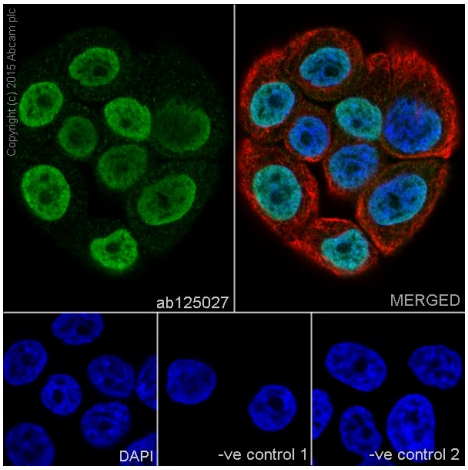
All lanes : Anti-Histone H1.0 antibody [EPR6537] (ab125027) at 10 µg (purified)

Lane 1 : human fetal lung lysate
Lane 2 : BxPC-3 lysate
Lane 3 : A431 lysate
Lane 4 : human fetal kidney lysate

Secondary
All lanes : HRP goat anti-rabbit IgG (H+L) at 1/1000 dilution

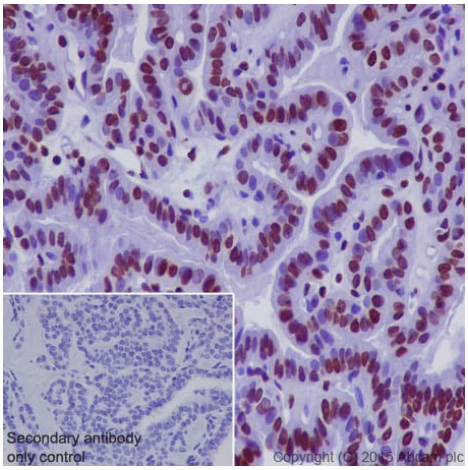
Predicted band size: 21 kDa
Observed band size: 32 kDa

Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST



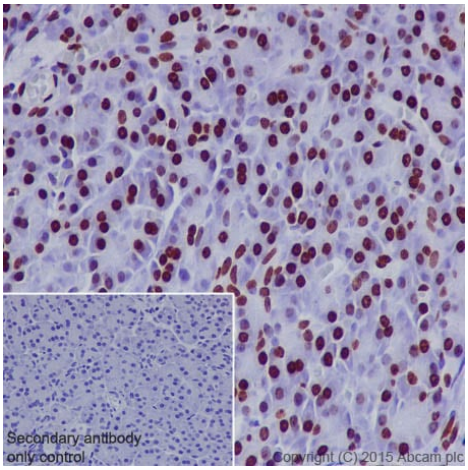
Immunocytochemistry/ Immunofluorescence - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

Immunofluorescence staining of BxPC-3 cells with purified ab125027 at a working dilution of 1/100, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (**ab150077**), used at a dilution of 1/1000. **ab7291**, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with **ab150120** (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 100% methanol and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab125027 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (**ab150120**) at a dilution of 1/500. For negative control 2, **ab7291** (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (**ab150077**) at a dilution of 1/400.



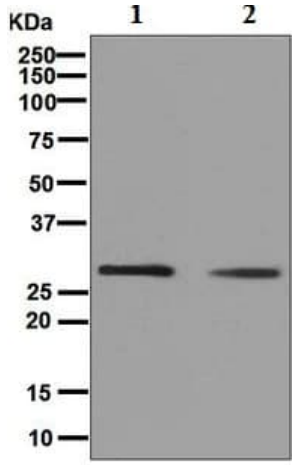
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

Immunohistochemical staining of paraffin embedded human thyroid carcinoma with purified ab125027 at a working dilution of 1/400. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

Immunohistochemical staining of paraffin embedded human pancreas with purified ab125027 at a working dilution of 1/400. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.



Western blot - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

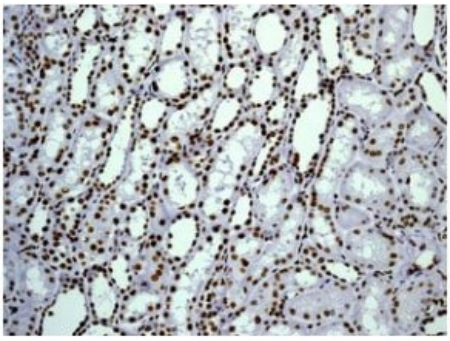
All lanes : Anti-Histone H1.0 antibody [EPR6537] (ab125027) at 1/1000 dilution (unpurified)

Lane 1 : BxPC3 lysates
Lane 2 : Human fetal lung lysates

Lysates/proteins at 10 µg per lane.

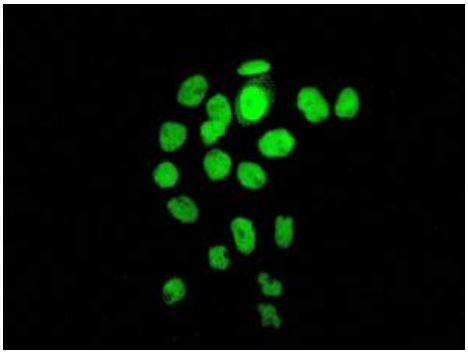
Secondary
All lanes : HRP labelled goat anti rabbit at 1/2000 dilution

Predicted band size: 21 kDa



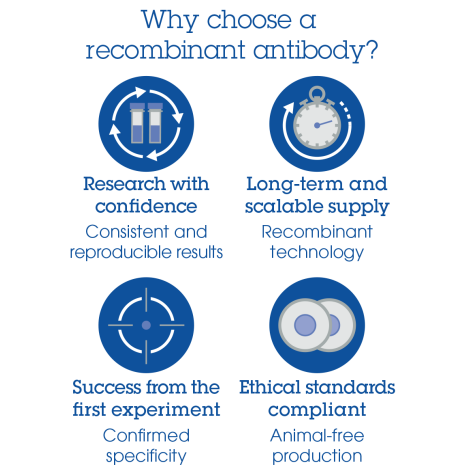
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

Unpurified ab125027, at a 1/100 dilution, staining Histone H1 in paraffin embedded Human kidney tissue by Immunohistochemistry.



Immunocytochemistry/ Immunofluorescence - Anti-Histone H1.0 antibody [EPR6537] (ab125027)

Unpurified ab125027, at a 1/100 dilution, staining Histone H1 in A431 cells by Immunofluorescence.



Anti-Histone H1.0 antibody [EPR6537] (ab125027)

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