abcam

Product datasheet

Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] ab108922

Recombinant RabMAb

6 Abreviews 29 References 17 Images

Overview

Product name	Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068]
Description	Rabbit monoclonal [EPR4068] to Lamin A + Lamin B1 + Lamin C
Host species	Rabbit
Specificity	The antibody recognizes full length Lamin A/B1/C and the cleaved small unit.
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra), WB, IP, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Spermophilus tridecemlineatus
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse heart and rat heart tissue lysates and HeLa, HepG2 and HACAT cell lysates, ab83472. IHC-P: Human ovarian carcinoma, human liver carcinoma, human breast, human uterus, human kidney mouse liver and rat liver tissues. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells. IP: HepG2 lysate.
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.

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: 50% Glycerol (glycerin, glycerine), 49% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4068
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108922 in the following tested applications.

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

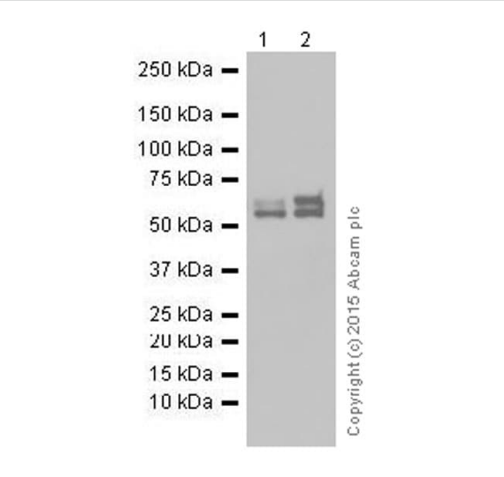
Application	Abreviews	Notes
ICC/IF		1/100 - 1/250.
Flow Cyt (Intra)		1/20.
WB	★★★★★ (4)	1/1000 - 1/10000. Predicted molecular weight: 74 kDa.
IP		1/10 - 1/100.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Cellular localization Lamin A: Nucleus. Nucleus envelope. Farnesylation of prelamin-A/C facilitates nuclear envelope targeting and subsequent cleaveage by ZMPSTE24/FACE1 to remove the farnesyl group produces mature lamin-A/C, which can then be inserted into the nuclear lamina. EMD is required for proper localization of non-farnesylated prelamin-A/C. Lamin B1: Nucleus inner membrane. Lamin C: Nucleus. Nucleus envelope. Farnesylation of prelamin-A/C facilitates nuclear envelope targeting and subsequent cleaveage by ZMPSTE24/FACE1 to remove the farnesyl group produces mature lamin-A/C, which can then be inserted into the nuclear lamina. EMD is required for proper localization of non-farnesylated prelamin-A/C.

Form Lamin C: There are 3 isoforms produced by alternative splicing. Isoform A also known as Lamin A; Isoform C also known as Lamin C; Isoform ADelta10 also known as Lamin ADelta10.

Images



Western blot - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

All lanes : Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922) at 1/10000 dilution (purified)

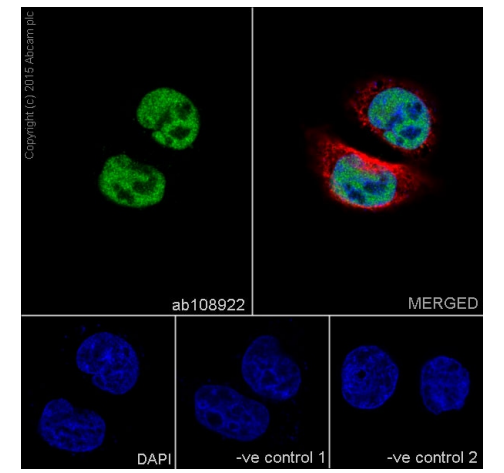
Lane 1 : mouse heart lysate
Lane 2 : rat heart lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP goat anti-rabbit IgG (H+L) at 1/100000 dilution

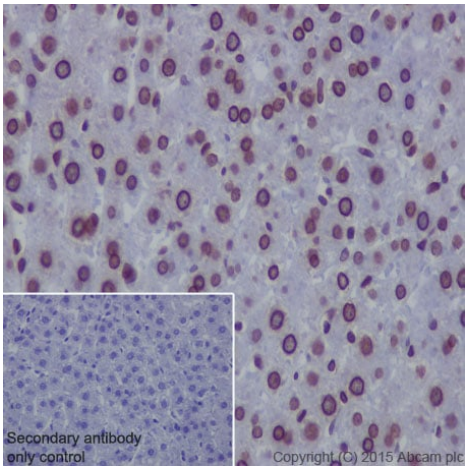
Predicted band size: 74 kDa
Additional bands at: 65 kDa (possible isoform), 70 kDa (possible isoform), 74 kDa (possible isoform)

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



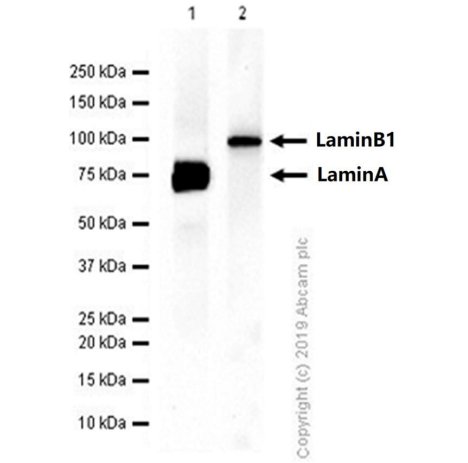
Immunocytochemistry/ Immunofluorescence - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunofluorescence staining of HeLa cells with purified ab108922 at a working dilution of 1/250, 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 4% PFA 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 ab108922 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-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunohistochemical staining of paraffin embedded rat liver with purified ab108922 at a working dilution of 1/200. 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-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

All lanes : Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922) at 1/1000 dilution

Lane 1 : Recombinant Human Lamin A protein (**ab83472**)
Lane 2 : GST tagged recombinant Human Lamin B1 protein (1 to 586) (91 KDa)

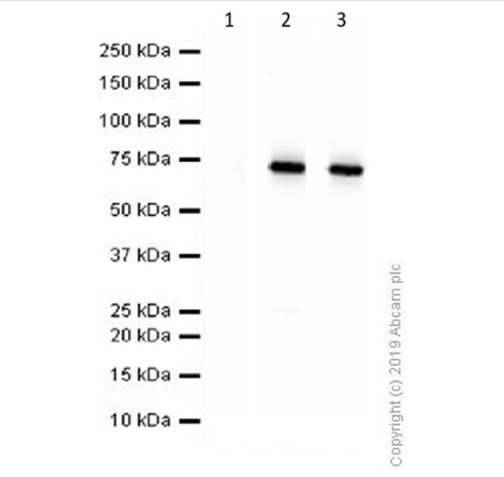
Lysates/proteins at 10 µg per lane.

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

Predicted band size: 74 kDa
Observed band size: 75, 91 kDa

Exposure time: 180 seconds

Blocking/Diluting buffer and concentration 5% NFDM/TBST



Western blot - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Lane 1 : Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922) at 1/1000 dilution
Lane 2 : Anti-Myc tag antibody at 1/10000 dilution
Lane 3 : Anti-DDDDK tag (Binds to FLAG® tag sequence) antibody [EPR20018-251] (**ab205606**) at 1/5000 dilution

All lanes : Myc and DDK tagged recombinant Human Lamin B2 protein

Lysates/proteins at 0.01 µg per lane.

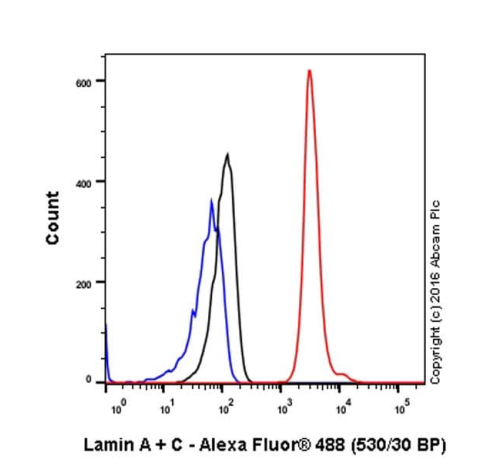
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 74 kDa
Observed band size: 68 kDa

Exposure time: 7 seconds

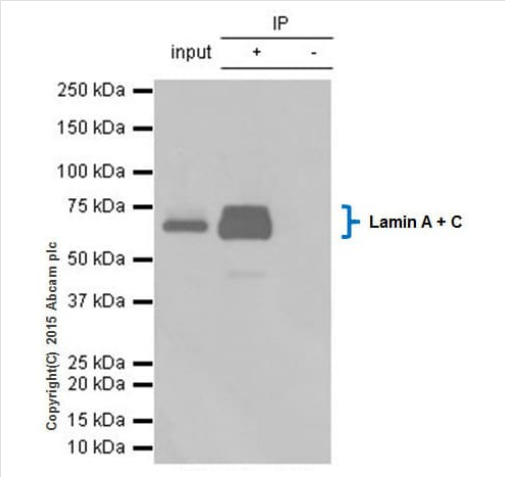
Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

ab108922 does not cross react with Lamin B2.



Flow Cytometry (Intracellular) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Intracellular Flow Cytometry analysis of HeLa cells labelling Lamin A + B1 + C with purified ab108922 at a dilution of 1/20 (red). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. An Alexa Flour®488-conjugated goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

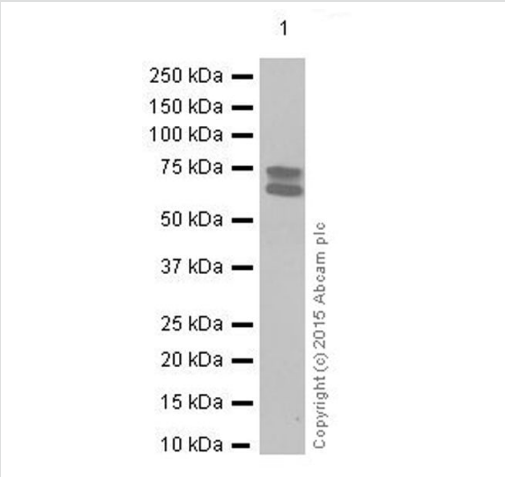


Immunoprecipitation - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

ab108922 (purified) at 1/20 immunoprecipitating Lamin A + B1 + C in 10 µg HepG2 (Lanes 1 and 2, observed at 70, 74, and 65 kDa - ab108922 recognises three isoforms). Lane 3 - PBS. For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution.

Blocking buffer and concentration: 5% NFDM/TBST.

Dilution buffer and concentration: 5% NFDM/TBST.



Western blot - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922) at 1/10000 dilution (purified) + HeLa cell lysate at 10 µg

Secondary

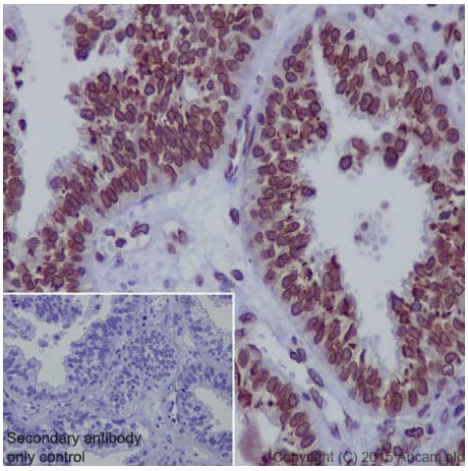
HRP goat anti-rabbit IgG (H+L) at 1/100000 dilution

Predicted band size: 74 kDa

Additional bands at: 65 kDa (possible isoform), 70 kDa (possible isoform), 74 kDa (possible isoform)

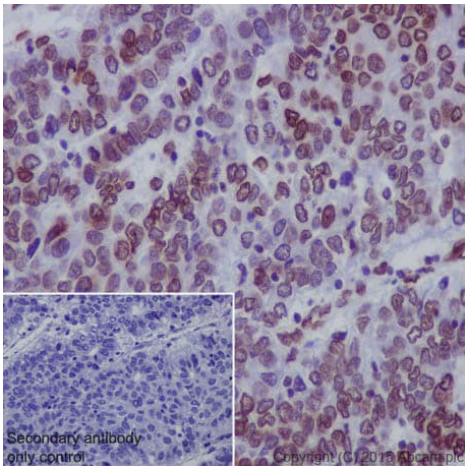
Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST



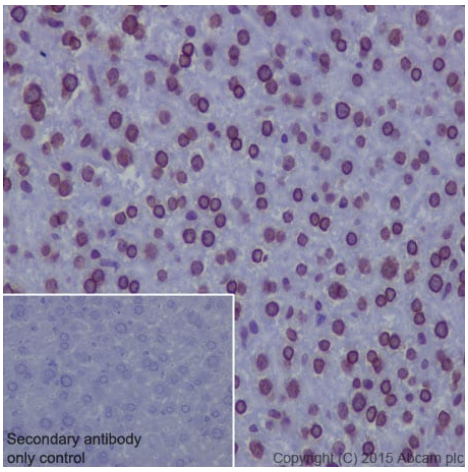
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunohistochemical staining of paraffin embedded human ovarian carcinoma with purified ab108922 at a working dilution of 1/200. 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.



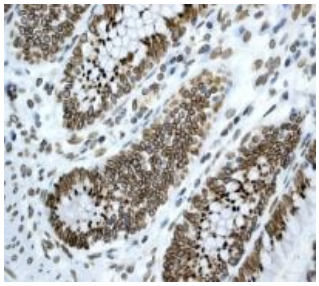
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunohistochemical staining of paraffin embedded human liver carcinoma with purified ab108922 at a working dilution of 1/200. 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.



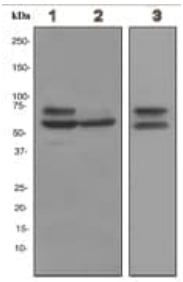
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunohistochemical staining of paraffin embedded mouse liver with purified ab108922 at a working dilution of 1/200. 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-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Immunohistochemical analysis of paraffin-embedded human colonic tissue using unpurified ab108922 at a diltion of 1/100



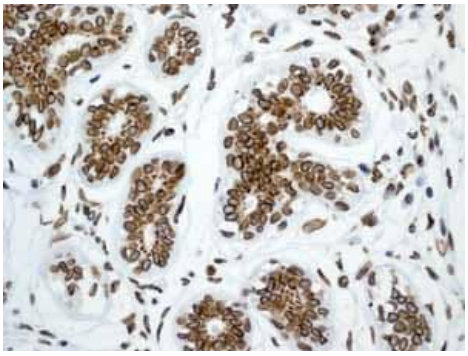
Western blot - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

All lanes : Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922) at 1/1000 dilution (unpurified)

Lane 1 : HeLa cell lysate
Lane 2 : HepG2 cell lysate
Lane 3 : HACAT cell lysate

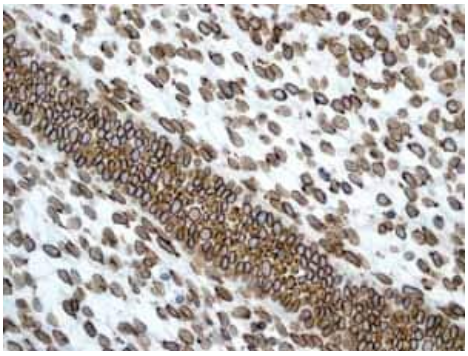
Lysates/proteins at 10 µg per lane.

Predicted band size: 74 kDa



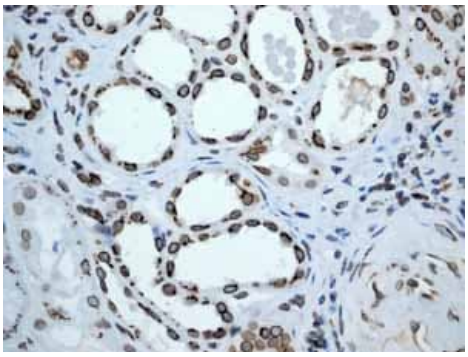
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Unpurified ab108922 showing positive staining in Normal human breast tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Unpurified ab108922 showing positive staining in Normal human uterus tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Lamin A + Lamin B1 + Lamin C antibody [EPR4068] (ab108922)

Unpurified ab108922 showing positive staining in Normal human kidney tissue.

Anti-Lamin A + Lamin B1 + Lamin C antibody

[EPR4068] (ab108922)

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