abcam

ab151714

Anti-Matrin 3 antibody [EPR10635(B)]

Recombinant | RabMAb | KO Validated

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	EPR10635(B)
Purification technique	Affinity purification Protein A
Concentration	1.527 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 use at 1/250 - 1/500.**

Species	Rat

Dilution info	1/2000
Notes	**For unpurified use at 1/250 - 1/500.**

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

WB

Tested

Species	Mouse
Dilution info	1/10000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250 - 1/1500
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/220
Notes	-

Expected

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

Target data

See full target information MATR3

Function May play a role in transcription or may interact with other nuclear matrix proteins to form the internal fibrogranular network. In association with the SFPQ-NONO heteromer may play a role in nuclear retention of defective RNAs. Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway (PubMed:28712728). Binds to N6-methyladenosine (m6A)-containing mRNAs and contributes to MYC stability by binding to m6A-containing MYC mRNAs (PubMed:32245947). May bind to specific miRNA hairpins (PubMed:28431233).

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

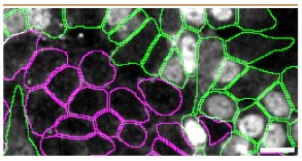
We do not recommend this combination. It is not covered by our product promise.

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.

15 product images

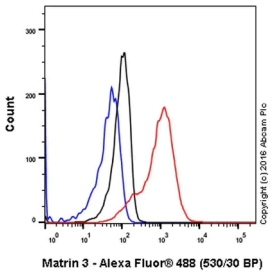


Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Matrin 3 antibody

ab151714 was shown to react with MATR3 in wild-type HAP1 cells in immunocytochemistry with loss of signal observed in a MATR3 knockout cell line. Wild-type and knockout cells were mixed and pelleted at a 1:1 ratio on coverslips. The cells were fixed with 4% paraformaldehyde (15 min) then permeabilized with 0.1% Triton X-100 (10min) and then blocked with 1x PBS, 0.01% Triton X-100, 5% BSA, 5% NGS. The cells were then incubated with ab151714 at dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat anti-rabbit secondary antibody to (Alexa Fluor® 555) at 0.5 µg/ml. Acquisition of the green (wild-type), red (antibody staining) and far-red (knockout) channels was performed. Representative grayscale images of the red channel are shown. Wild-type and knockout cells are outlined with yellow and magenta dashed line, respectively. Schematic representation of the mosaic strategy used is shown on the bottom-right panel. Image was acquired with a Zeiss(LSM-880).

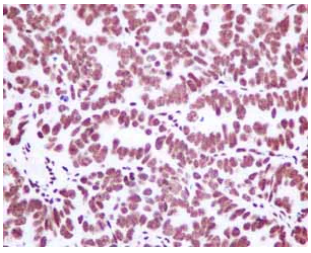
This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.



Flow Cytometry (Intracellular) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Flow Cytometry (Intracellular) staining using rabbit Anti-Matrin 3 antibody

Intracellular Flow Cytometry analysis of 4%paraformaldehyde fixedHepG2 (human hepatocellular carcinoma) cells labeling Matrin 3 with purified ab151714 at a dilution of 1/220. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

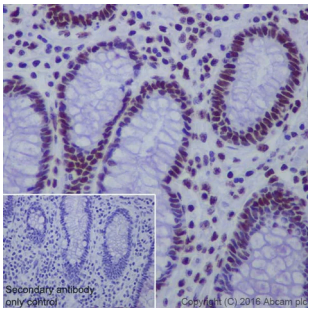


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

Immunohistochemical analysis of paraffin embedded Human Ovarian carcinoma tissue using unpurified ab151714 showing +ve staining.

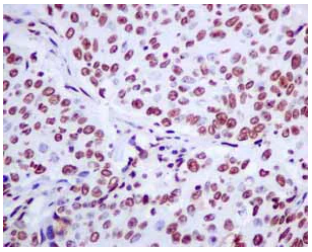
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

Immunohistochemical analysis of paraffin-embedded human colon tissue sections labeling Matrin 3 with purified ab151714 at a dilution of 1/2000 (0.7 µg/ml). ab97051 Goat Anti-Rabbit IgG H&L (HRP) at 1/500 was used as the secondary anitbody. Sections were counterstained with hematoxylin. Antigen retrieval was heat mediated using citrate Buffer, pH 6.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.

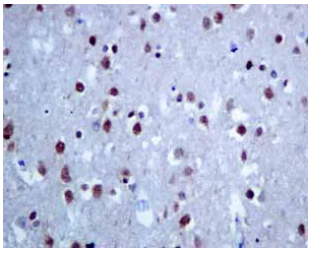


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

Immunohistochemical analysis of paraffin embedded Human Lung carcinoma tissue using unpurified ab151714 showing +ve staining.

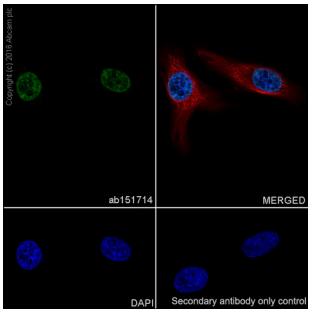
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

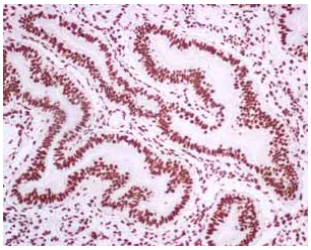
Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling Matrin 3 with unpurified ab151714 at 1/250 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Matrin 3 antibody

Immunocytochemistry/Immunofluorescence analysis of HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Matrin 3 with purified ab151714 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% tritonX-100. ab150077, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Cells were counter-stained with ab195889 Anti-Alpha Tubulin antibody [DM1A] (1/200, 2.5 µg/mL) - Microtubule Marker (Alexa Fluor® 594) at 1/200. DAPI (blue) was used as a nuclear counterstain. Secondary Only Control: PBS was used instead of the primary antibody as the negative control.

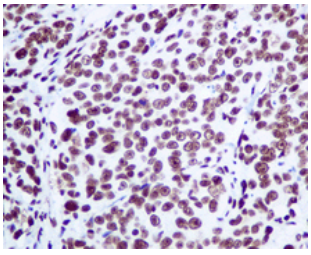


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

Immunohistochemical analysis of paraffin embedded normal Human uterus tissue using unpurified ab151714 showing +ve staining.

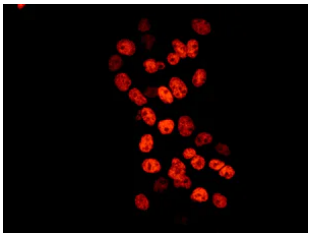
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

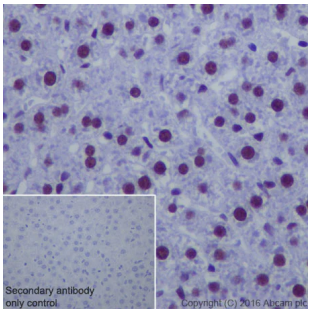
Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue labeling Matrin 3 with unpurified ab151714 at 1/250 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Matrin 3 antibody

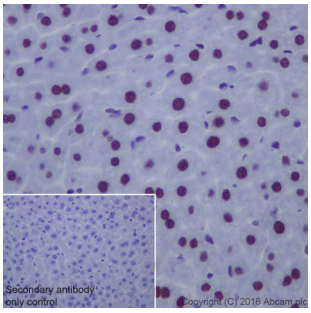
Immunofluorescent analysis of HepG2 cells labeling Matrin 3 with unpurified ab151714 at 1/250 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

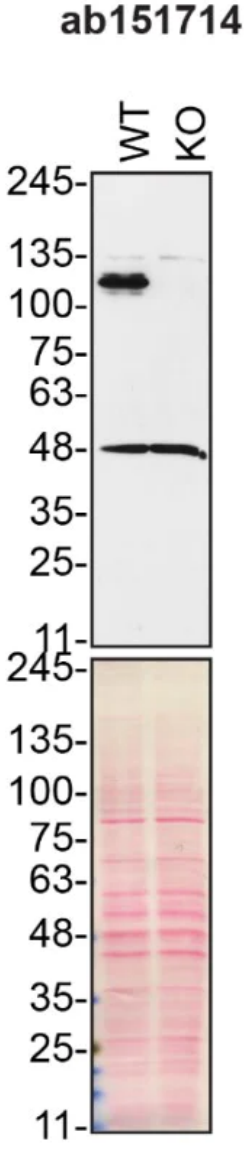
Immunohistochemical analysis of Paraffin-embedded rat liver tissue sections labeling Matrin 3 with purified ab151714 at a dilution of 1/2000 (0.7 µg/ml). ab97051 Goat Anti-Rabbit IgG H&L (HRP) at 1/500 was used as the secondary anitbody. Sections were counterstained with hematoxylin. Antigen retrieval was heat mediated using citrate Buffer, pH 6.0. 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-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

Immunohistochemical analysis of paraffin-embedded mouse liver tissue sections labeling Matrin 3 with purified ab151714 at a dilution of 1/2000 (0.7 µg/ml). ab97051 Goat Anti-Rabbit IgG H&L (HRP) at 1/500 was used as the secondary anitbody. Sections were counterstained with hematoxylin. Antigen retrieval was heat mediated using citrate Buffer, pH 6.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.

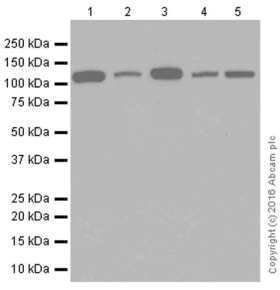


Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Matrin 3 Western blot staining using rabbit Anti-Matrin 3 antibody

ab151714 was shown to react with MATR3 in wild-type HAP1 cells in Western blot with loss of signal observed in a MATR3 knockout cell line. Wild-type HAP1 and MATR3 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab151714 overnight at 4 °C at a 1/10000 dilution. Blots were incubated with goat anti-rabbit HRP secondary antibodies at 0.2 µg/ml before imaging. These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.
All lanes:
Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Predicted band size: 95 kDa



Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

Blocking/Diluting buffer 5% NFDM/TBST
All lanes:
Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714) at 1/10000 dilution

Lane 1:
HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate at 20 µg

Lane 2:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate at 20 µg

Lane 3:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 4:
Mouse brain tissue lysate at 20 µg

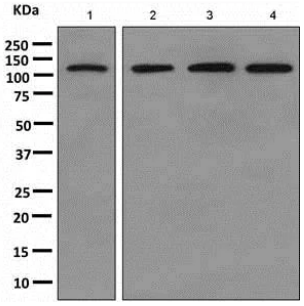
Lane 5:
Rat brain tissue lysate at 20 µg

Secondary

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

Predicted band size: 59 kDa, 95 kDa

Observed band size: 125 kDa



Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714)

All lanes:
Western blot - Anti-Matrin 3 antibody [EPR10635(B)] (ab151714) at 1/1000 dilution

Lane 1:
HEK293T cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
HeLa cell lysate at 10 µg

Lane 4:
HepG2 cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 95 kDa

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