abcam

# ab240123

# Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free

Recombinant | RabMAb | KO Validated

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | EPR10635(B) |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 1.035 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse, Human |
| **Dilution info** | - |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

### Predicted

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | - |
| **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** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab240123 is the carrier-free version of ab151714.

**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.

**Conjugation ready**
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## 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**

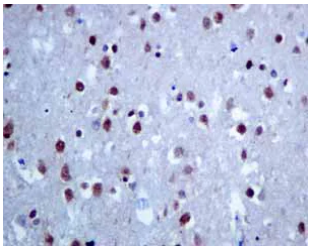
We do not recommend this combination. It is not covered by our product promise.

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.

## 12 product images

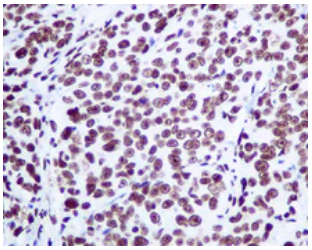


### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

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



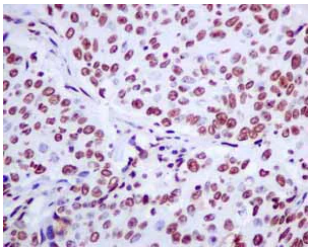
## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

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

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## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

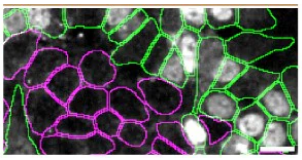
Matrin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Matrin 3 antibody

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

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

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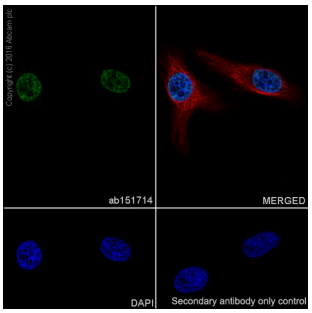


## Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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

This data was developed using the same antibody clone in a different buffer formulation (ab151714) 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).

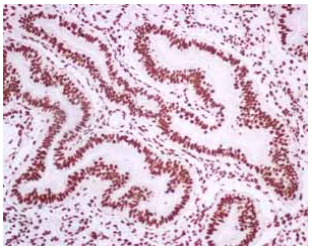
This data was provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate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




## Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).



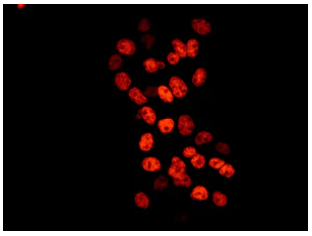
## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

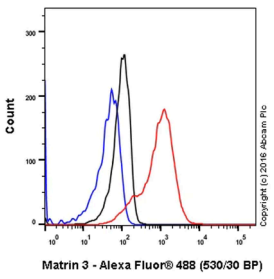
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



## Immunocytochemistry/ Immunofluorescence - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).



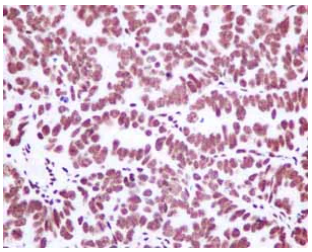

## Flow Cytometry (Intracellular) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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

Intracellular Flow Cytometry analysis of 4% paraformaldehyde fixed HepG2 (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)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).



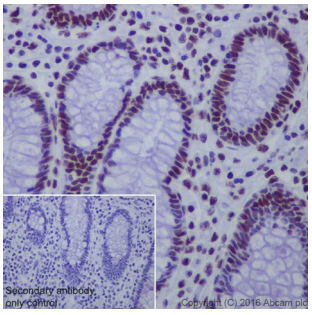
## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

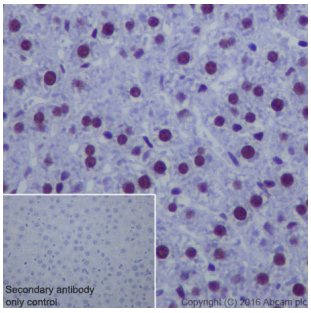
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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

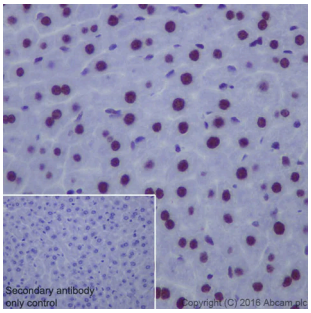
Immunohistochemical analysis of paraffin-embedded human colon tissue sections labeling Matrin 3 with purified ab151714 at a dilution of 1/2000 (0.7 µg/ml). ab97051 Goat Anti-Rabbit IgG H&L (HRP) at 1/500 was used as the secondary anitbody. Sections were counterstained with hematoxylin. Antigen retrieval 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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Matrin 3 antibody [EPR10635(B)] - BSA and Azide free (ab240123)

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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab151714).

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