abcam

## ab199056

# Anti-Fibronectin antibody [EPR19241-46]

Anti-Fibronectin antibody [EPR19241-46] (ab199056) is a rabbit monoclonal antibody detecting Fibronectin in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Lab Essentials | 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 |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR19241-46 |
| **Purification technique** | Affinity purification Protein A |
| **Specificity** | Western blot and IHC tests of human samples were negative. |
| **Concentration** | 0.48 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/30 |
| **Notes** | - |

### Expected

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

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/1000 |
| **Notes** | - |

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| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/1000 |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/250 |
| **Notes** | - |

### Expected

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

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/500 |
| **Notes** | - |

### Expected

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

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/2000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/2000 |
| **Notes** | - |

# Target data

See full target information Fn1

**Function**

Fibronectins bind cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin (By similarity). Fibronectins are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape healing, and maintenance of cell shape (By similarity). Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization (PubMed:21768292). Participates in the regulation of type I collagen deposition by osteoblasts (PubMed:21768292). Acts as a ligand for the Lilrb4a receptor, inhibiting Fcgr1/CD64-mediated monocyte activation (PubMed:34089617). Secreted by contracting muscle, induces liver autophagy, a degradative pathway for nutrient mobilization and damage removal, and systemic insulin sensitization via hepatic ITGA5:ITGB1 integrin receptor

signaling. Anastellin. Binds fibronectin and induces fibril formation. This fibronectin polymer, named superfibronectin, exhibits enhanced adhesive properties. Both anastellin and superfibronectin inhibit tumor growth, angiogenesis and metastasis. Anastellin activates p38 MAPK and inhibits lysophospholipid signaling.

## 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

**What is this antibody validated in?**
Anti-Fibronectin antibody [EPR19241-46] (ab199056) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Mouse, Rat samples.

**What is the molecular weight of Fibronectin?**
Anti-Fibronectin [EPR19241-46] (ab199056) specifically detects a band for Fibronectin (UniProt: P11276) at a molecular weight of 273kDa.

**Trusted by the scientific community**
Anti-Fibronectin [EPR19241-46] (ab199056) was first used in a scientific publication in 2017 and has been cited over 10 times in peer-reviewed journals.

**Other related products**
We have a range of other formats of antibody clone [EPR19241-46] also available for your convenience: ab199056, Carrier free - ab224689, Alexa Fluor® 488 - ab237286, Alexa Fluor® 647 - ab237287, Carrier free - ab242781, Alexa Fluor® 568 - ab314284, Biotin - ab322832

**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.

**Trial sizes available!**
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size 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**

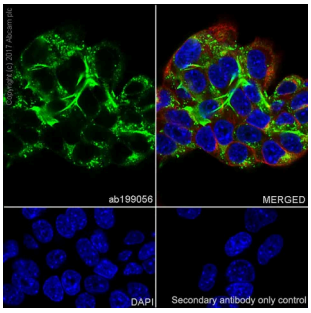
We do not recommend this combination. It is not covered by our product promise.

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.

## 7 product images

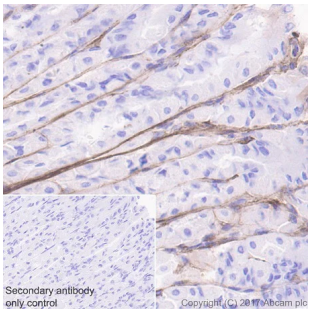



## Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

Fibronectin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Fibronectin antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Hepa 1-6 (mouse hepatoma epithelial cell line) cells labeling Fibronectin with ab199056 at 1/250 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining on Hepa1-6 cells.
The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) (red) at 1/200 dilution.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

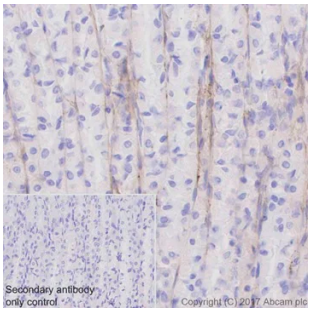



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

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

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling Fibronectin with ab199056 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the extracellular matrix of mouse stomach (PMID: 650151).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

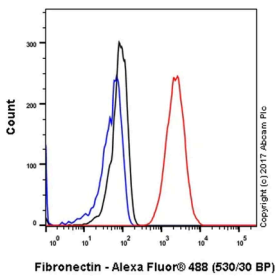



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

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

Immunohistochemical analysis of paraffin-embedded rat stomach tissue labeling Fironectin with ab199056 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the extracellular matrix of rat stomach (PMID: 650151).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

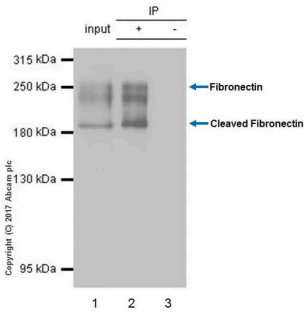
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.




## Flow Cytometry (Intracellular) - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

Fibronectin Flow Cytometry (Intracellular) staining using rabbit Anti-Fibronectin antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized Hepa1-6 (mouse hepatoma epithelial cell line) cell line labeling Fibronectin with ab199056 at 1/500 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluorr® 488) at 1/2000 dilution was used as the secondary antibody.




## Immunoprecipitation - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

Fibronectin was immunoprecipitated from 0.35 mg of mouse plasma with ab199056 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab199056 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.
Lane 1: Mouse plasma 10 µg (Input).

Lane 2: ab199056 IP in mouse plasma.

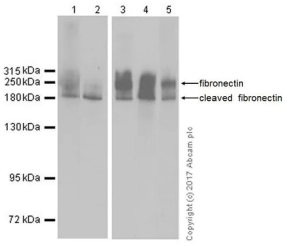
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab199056 in mouse plasma.

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

Exposure time: 1 second.

All lanes:
Immunoprecipitation - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

Predicted band size: 262 kDa




## Western blot - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

**Exposure time :** Lanes 1 and 2:4 seconds; Lanes 3,4 and 5:2 seconds.

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID: 6994838, PMID 7516997, PMID: 21923916).

All lanes:
Western blot - Anti-Fibronectin antibody [EPR19241-46] (ab199056) at 1/1000 dilution

Lane 1:
Mouse liver lysate at 10 µL/mL Buffer

Lane 2:
Rat liver lysate at 10 µL/mL Buffer

Lane 3:
Mouse plasma at 10 µL/mL Buffer

Lane 4:
Rat plasma at 10 µL/mL Buffer

Lane 5:
Hepa1-6 (mouse hepatoma epithelial cell line) whole cell lysate at 10 µL/mL Buffer

Secondary

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

Developed using the ECL technique.

Predicted band size: 262 kDa

Observed band size: 220-273 kDa

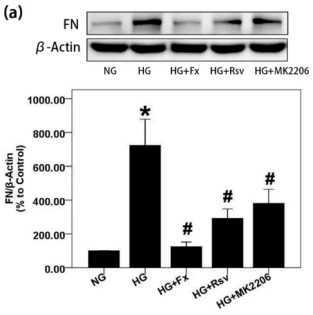



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## Western blot - Anti-Fibronectin antibody [EPR19241-46] (ab199056)

Fibronectin Western blot staining using rabbit Anti-Fibronectin antibody

Fibronectin western blot using anti-Fibronectin antibody [EPR19241-46] ab199056. Publication image and figure legend from Yang, G., Jin, L., et al., 2019, Mar Drugs, PubMed 31842414.

ab199056 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab199056 please see the product overview.

Fx can significantly reduce the accumulation of FN and collagen IV induced by HG in GMCs. (a) FN was detected by western blot after 24 h of HG treatment with or without Fx (2 µM), Rsv (40 µM) or MK2206 (2 µM). (b) After 24 h of HG treatment with or without Fx (2 µM), Rsv (40 µM) or MK2206 (2 µM), GMCs were lysed for protein extraction, and collagen IV was detected by western blot. (c) GMCs were induced by HG with or without Fx (2 µM), Rsv (40 µM), or MK2206 (2 µM) for 24 h. FN was stained by the immunofluorescence with antibody against FN and then captured under Olympus IX71 (400X); red fluorescence indicates FN, blue fluorescence indicates nucleus, and scale represents 10 µm. β-Actin was measured as a loading control; all the experiments were repeated at least three times independently with similar results. * $p < 0.05$ vs. normal glucose (NG) group and # $p < 0.05$ vs. 30 mM HG group.

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