abcam

ab315384

Anti-Fibrillin 1 antibody [EPR27362-78]

Recombinant | RabMAb | Advanced Validation | 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	EPR27362-78
Purification technique	Affinity purification Protein A
Specificity	This antibody has weak cross reaction with human Fibrillin 3.
Concentration	0.545 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	

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

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Dot

Tested

Species	Recombinant fragment - Human
Dilution info	1/1000
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

I-ELISA

Tested

Species	Recombinant fragment - Human
Dilution info	1000 ng/mL
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

mIHC

Tested

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat, Recombinant fragment - Human
Dilution info	-
Notes	-

Target data

See full target information FBN1

Function	Fibrillin-1. Structural component of the 10-12 nm diameter microfibrils of the extracellular matrix, which conveys both structural and regulatory properties to load-bearing connective tissues (PubMed:15062093, PubMed:1860873). Fibrillin-1-containing microfibrils provide long-term force bearing structural support (PubMed:27026396). In tissues such as the lung, blood vessels and skin, microfibrils form the periphery of the elastic fiber, acting as a scaffold for the deposition of elastin (PubMed:27026396). In addition, microfibrils can occur as elastin-independent networks in tissues such as the ciliary zonule, tendon, cornea and glomerulus where they provide tensile strength and have anchoring roles (PubMed:27026396). Fibrillin-1 also plays a key role in tissue homeostasis through specific interactions with growth factors, such as the bone morphogenetic proteins (BMPs), growth and differentiation factors (GDFs) and latent transforming growth factor-beta-binding proteins (LTBPs), cell-surface integrins and other extracellular matrix protein and proteoglycan components (PubMed:27026396). Regulates osteoblast maturation by controlling TGF-beta bioavailability and calibrating TGF-beta and BMP levels, respectively (By similarity). Negatively regulates osteoclastogenesis by binding and sequestering an osteoclast differentiation and activation factor TNFSF11 (PubMed:24039232). This leads to disruption of TNFSF11-induced Ca(2+) signaling and impairment of TNFSF11-mediated nuclear translocation and activation of transcription factor NFATC1 which regulates genes important for osteoclast differentiation and function (PubMed:24039232). Mediates cell adhesion via its binding to cell surface receptors integrins ITGAV:ITGB3 and ITGA5:ITGB1 (PubMed:12807887, PubMed:17158881). Binds heparin and this interaction has an important role in the assembly of microfibrils (PubMed:11461921). Asprosin. Adipokine secreted by white adipose tissue that plays an important regulatory role in the glucose metabolism of liver, muscle and pancreas (PubMed:27087445, PubMed:30853600). Hormone that targets the liver in response to fasting to increase plasma glucose levels (PubMed:27087445). Binds the olfactory receptor OR4M1 at the surface of hepatocytes and promotes hepatocyte glucose release by activating the protein kinase A activity in the liver, resulting in rapid glucose release into the circulation (PubMed:27087445, PubMed:31230984). May act as a regulator of adaptive thermogenesis by inhibiting browning and energy consumption, while increasing lipid deposition in white adipose tissue (By similarity). Also acts as an orexigenic hormone that increases appetite: crosses the blood brain barrier and exerts effects on the hypothalamus (By similarity). In the arcuate nucleus of the hypothalamus, asprosin directly activates orexigenic AgRP neurons and indirectly inhibits anorexigenic POMC neurons, resulting in appetite stimulation (By similarity). Activates orexigenic AgRP neurons via binding to the olfactory receptor OR4M1 (By similarity). May also play a role in sperm motility in testis via interaction with OR4M1 receptor (By similarity).

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

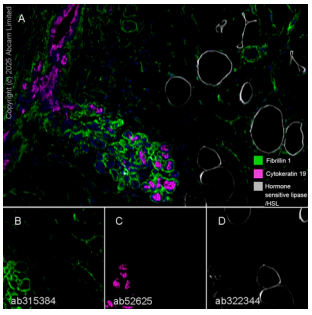
We do not recommend this combination. It is not covered by our product promise.

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:

13 product images



Multiplex immunohistochemistry - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Fibrillin 1 Multiplex immunohistochemistry staining of Human breast tissue using rabbit Anti-Fibrillin 1 antibody

Immunohistochemistry analysis of Formalin/PFA-fixed paraffin-embedded sections Human breast tissue labelling Fibrillin 1 with ab315384 at 1:100 dilution (B), Cytokeratin 19 with ab52625 at 1:6000 dilution (C) and Hormone sensitive lipase/HSL with ab322344 at 1:2000 dilution (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-Fibrillin 1 (green; Opal™570), anti-Cytokeratin 19 (magenta; Opal™690) and anti-Hormone sensitive lipase/HSL (gray; Opal™570) on human breast.

Panel B: anti-Fibrillin 1 staining stromal connective tissue in human breast.

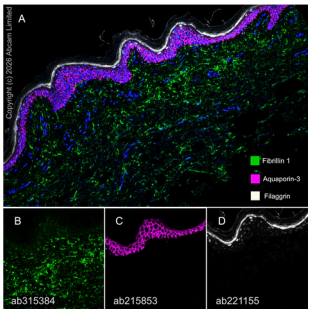
Panel C: ant-Cytokeratin 19 staining epithelium in human breast.

Panel D: ant-Hormone sensitive lipase/HSL staining adipocytes in human breast.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab315384, ab52625 and ab322344 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Multiplex immunohistochemistry - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Fibrillin 1 Multiplex immunohistochemistry staining of Human skin using rabbit Anti-Fibrillin 1 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human skin tissue staining Fibrillin 1 with ab315384 at a 1/100 dilution (5.08 µg/ml), ab215853 anti-Aquaporin-3 used at a 1/300 dilution (2.056 µg/ml) and ab221155 anti-Filaggrin used at a 1/1000 dilution (0.497 µg/ml).
Panel A: merged staining of anti-Fibrillin 1 (green; Opal™520), anti-Aquaporin-3 (magenta; Opal™690) and anti-Filaggrin (gray; Opal™570) on human skin.

Panel B: anti-Fibrillin 1 staining extracellular microfibrils in human skin.

Panel C: anti-Aquaporin-3 staining membrane of squamous cells in human skin.

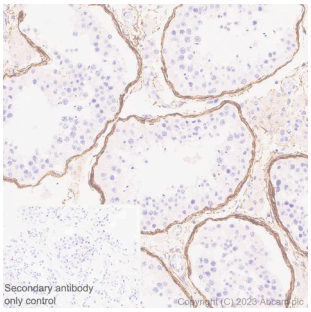
Panel D: anti-Filaggrin staining maturing squamous cells in human skin.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab315384, ab215853 and ab221155 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit using Opal Polymer HRP Ms + Rb secondary reagent. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



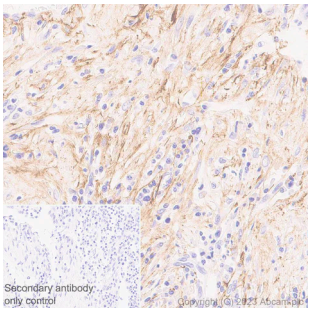
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on stromal connective tissue of human testis. The section was incubated with ab315384 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



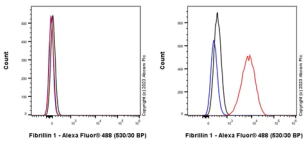
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue labeling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on stromal connective tissue of human colon carcinoma. The section was incubated with ab315384 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

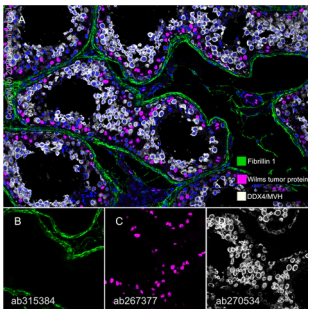


Flow Cytometry (Intracellular) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized U-937 (human histiocytic lymphoma monocyte, Left) / A-172 (human brain glioblastoma cell, Right) cells labelling Fibrillin 1 with ab315384 at 1/500 dilution (0.1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: U-937.



Multiplex immunohistochemistry - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Fibrillin 1 Multiplex immunohistochemistry staining of Human testis using rabbit Anti-Fibrillin 1 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human testis tissue staining Fibrillin 1 with ab315384 at a 1/100 dilution (5.08 µg/ml), ab267377 anti-Wilms tumor protein used at a 1/500 dilution (0.766 µg/ml) and ab270534 anti-DDX4/MVH used at a 1/2000 dilution (0.238 µg/ml).
Panel A: merged staining of anti-Fibrillin 1 (green; Opal™520), anti-Wilms tumor protein (magenta; Opal™690) and anti-DDX4/MVH (gray; Opal™570) on human testis.

Panel B: anti-Fibrillin 1 staining extracellular microfibrils in human testis.

Panel C: anti-Wilms tumor protein staining Sertoli cells in human testis.

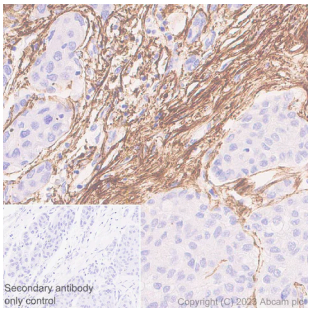
Panel D: anti-DDX4/MVH staining spermatogonia and spermatocytes in human testis.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab315384, ab267377 and ab270534 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit using Opal Polymer HRP Ms + Rb secondary reagent. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



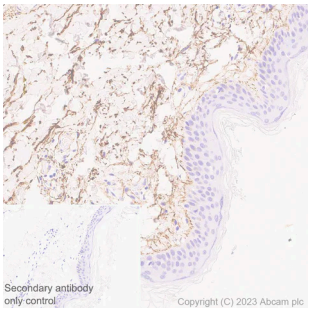
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labeling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on stromal connective tissue of human hepatocellular carcinoma. The section was incubated with ab315384 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



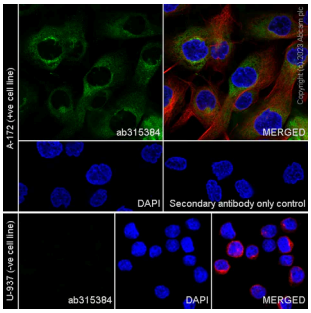
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunohistochemical analysis of paraffin-embedded Human skin tissue labeling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on stromal connective tissue of human skin (PMID: 16120151, PMID: 20195245). The section was incubated with ab315384 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with citrate buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



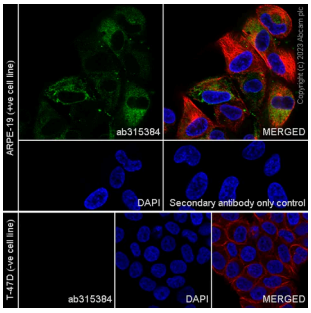
Immunocytochemistry/ Immunofluorescence - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A-172 (human brain glioblastoma cell) cells labelling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in A-172 cell line. Negative control: U-937. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



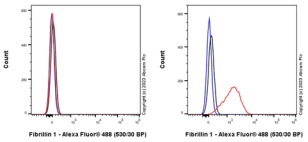
Immunocytochemistry/ Immunofluorescence - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized ARPE-19 (human eye epithelial cell) cells labelling Fibrillin 1 with ab315384 at 1/100 (5.08 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in ARPE-19 cell line. Negative control: T-47D. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.

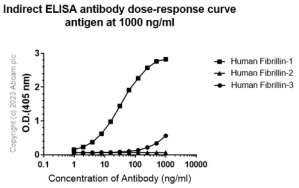


Flow Cytometry (Intracellular) - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized T-47D (human ductal breast epithelial tumor epithelial cell, Left) / ARPE-19 (human eye epithelial cell, Right) cells labelling Fibrillin 1 with ab315384 at 1/500 dilution (0.1 ug)/Red (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: T-47D.

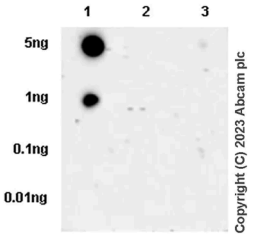


Indirect ELISA - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Indirect ELISA analysis of ab315384 at 1000-0 ng/ml. The Secondary antibody used was Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1:2500 dilution.

Antigen: Human Fibrillin-1,Human Fibrillin-2,Human Fibrillin-3.

Antigen concentration: 1000 ng/ml



Dot Blot - Anti-Fibrillin 1 antibody [EPR27362-78] (ab315384)

Dot blot analysis of Fibrillin 1 using ab315384 at 1:1000 (0.508 ug/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:1000 (0.508 ug/ml) dilution.

Exposure time: 180 seconds.

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

This antibody has weak cross reaction with human Fibrillin 3.

The recombinant proteins of Fibrillin 1, Fibrillin 2 and Fibrillin 3 were made in house.

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