abcam

Product datasheet

Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free ab219366

Recombinant RabMAb

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Overview

Product name	Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free
Description	Rabbit monoclonal [F1] to Fibronectin - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human serum and stomach tissue.This antibody gave a positive result in IF/ICC when used in the following formaldehyde fixed cell lines: HepG2. Flow Cyt (intra): HepG2
General notes	ab219366 is the carrier-free version of **ab32419**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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**. Our **Low endotoxin, azide-free formats** have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	F1
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219366 in the following tested applications.

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

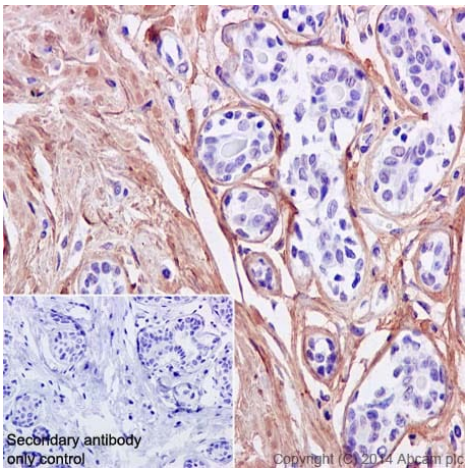
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 263 kDa.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function Fibronectins bind cell surfaces and various compounds including collagen, fibrin, heparin, DNA, and actin. Fibronectins are involved in cell adhesion, cell motility, opsonization, wound healing, and maintenance of cell shape. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization. Participates in the regulation of type I collagen deposition by osteoblasts.
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.

Tissue specificity	Plasma FN (soluble dimeric form) is secreted by hepatocytes. Cellular FN (dimeric or cross-linked multimeric forms), made by fibroblasts, epithelial and other cell types, is deposited as fibrils in the extracellular matrix. Ugl-Y1, Ugl-Y2 and Ugl-Y3 are found in urine.
Involvement in disease	Glomerulopathy with fibronectin deposits 2
Sequence similarities	Contains 12 fibronectin type-I domains. Contains 2 fibronectin type-II domains. Contains 16 fibronectin type-III domains.
Developmental stage	Ugl-Y1, Ugl-Y2 and Ugl-Y3 are present in the urine from 0 to 17 years of age.
Post-translational modifications	Sulfated. It is not known whether both or only one of Thr-2064 and Thr-2065 are/is glycosylated. Forms covalent cross-links mediated by a transglutaminase, such as F13A or TGM2, between a glutamine and the epsilon-amino group of a lysine residue, forming homopolymers and heteropolymers (e.g. fibrinogen-fibronectin, collagen-fibronectin heteropolymers). Phosphorylated by FAM20C in the extracellular medium. Proteolytic processing produces the C-terminal NC1 peptide, anastellin.
Cellular localization	Secreted, extracellular space, extracellular matrix.

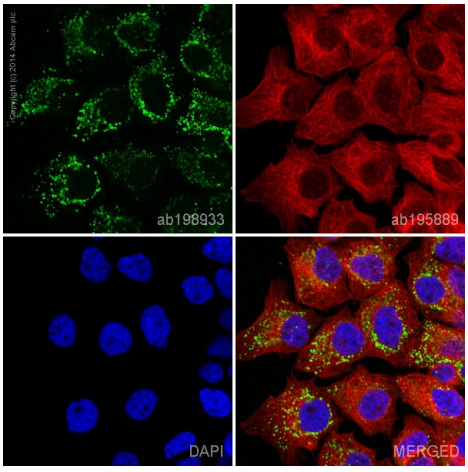
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

Immunohistochemical staining of paraffin embedded human breast carcinoma with purified **ab32419** at a dilution of 1/250. The secondary antibody used is **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L), at a dilution of 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32419**).

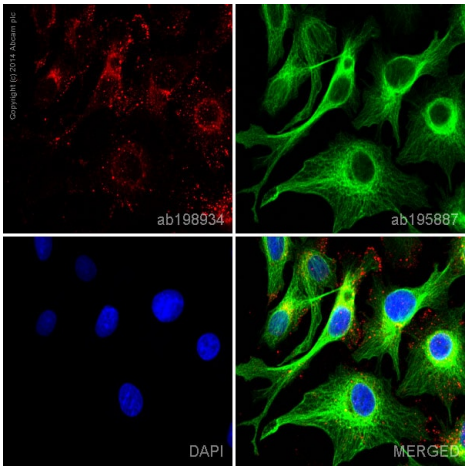


Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

Clone F1 (ab219366) has been successfully conjugated by Abcam. This image was generated using Anti-Fibronectin antibody [F1] (Alexa Fluor® 488). Please refer to **ab198933** for protocol details.

ab198933 staining Fibronectin in A431 (Human epidermoid carcinoma cell line) cells. The cells were fixed with 4% formaldehyde (10 minutes), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1 hour. The cells were then incubated overnight at +4°C with **ab198933** at a 1/100 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



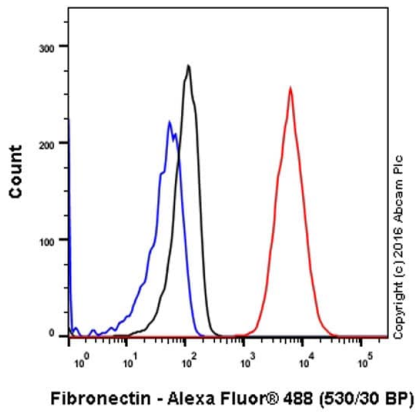
Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

Clone F1 (ab219366) has been successfully conjugated by Abcam. This image was generated using Anti-Fibronectin antibody [F1] (Alexa Fluor® 647). Please refer to **ab198934** for protocol details.

ab198934 staining Fibronectin in HepG2 cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with **ab198934** at 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

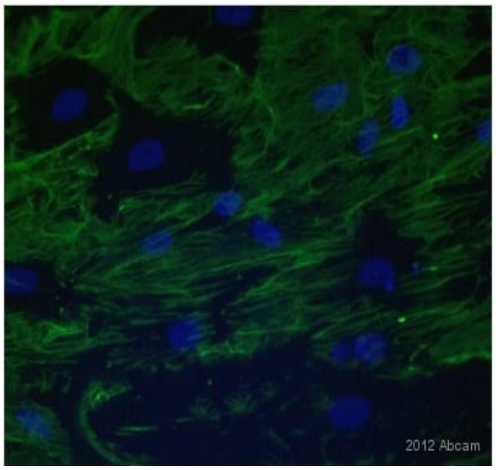
This product also gave a positive signal under the same testing conditions in HepG2 cells fixed with 100% methanol (5min).



Flow Cytometry (Intracellular) - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

Intracellular Flow Cytometry analysis of HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling Fibronectin with purified **ab32419** at 1/20 dilution (10 µg/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor®488) at 1/2000 dilution was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) was used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32419**).

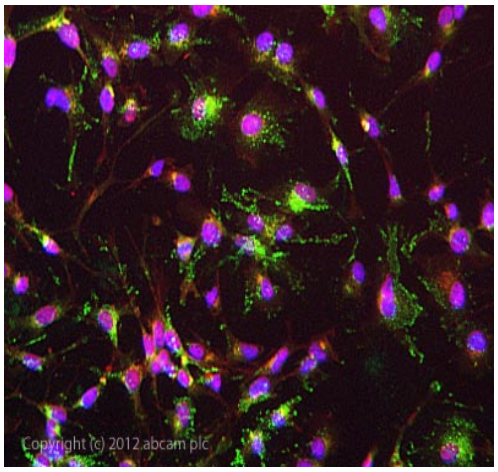


Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

This image is courtesy of an anonymous Abreview.

ICC/IF image of unpurified **ab32419** stained human mesenchymal stem cells. The cells were fixed in paraformaldehyde and then incubated in 0.1%BSA / 1% goat serum for 30 minutes, to block non-specific protein-protein interactions. The cells were then incubated with the antibody (**ab32419**, 1/100 dilution) for 2 hours at 22°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG. DAPI was used to stain the cell nuclei (blue).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32419**).



Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [F1] - Low endotoxin, Azide free (ab219366)

ICC/IF image of unpurified **ab32419** stained HepG2 (Human liver hepatocellular carcinoma cell line) cells. The cells were fixed in 4% formaldehyde (10 minutes) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1 hour to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody **ab32419** at 1/100 dilution overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (**ab96899**) IgG (H+L) used at a 1/1000 dilution for 1 hour. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1 hour. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 µM.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32419**).

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