

Product datasheet

Anti-Fibronectin antibody [F14] ab45688

KO VALIDATED Recombinant RabMAB[®]

★★★★★ [5 Abreviews](#) [94 References](#) [8 Images](#)

Overview

Product name	Anti-Fibronectin antibody [F14]
Description	Rabbit monoclonal [F14] to Fibronectin
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, ICC/IF Unsuitable for: IHC-P
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant full length protein corresponding to Human Fibronectin aa 1-2400. Database link: P02751
Positive control	WB: Human, mouse and rat serum lysate. IHC-Fr: Rat kidney tissue. ICC/IF: HepG2 cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- 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 .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.21% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	F14

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab45688 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
Flow Cyt (Intra)		1/150.
WB		1/1000 - 1/10000. Detects a band of approximately 263 kDa (predicted molecular weight: 263 kDa).
ICC/IF		1/500. For unpurified use at 1/250.

Application notes

Is unsuitable for IHC-P.

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.

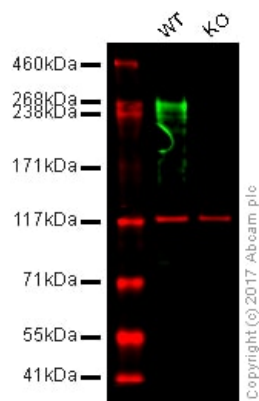
Post-translational modifications

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



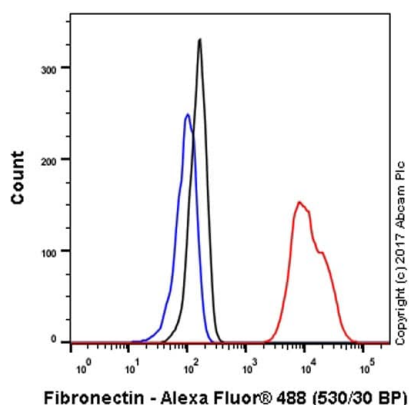
Western blot - Anti-Fibronectin antibody [F14] (ab45688)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: Fibronectin knockout HAP1 whole cell lysate (20 µg)

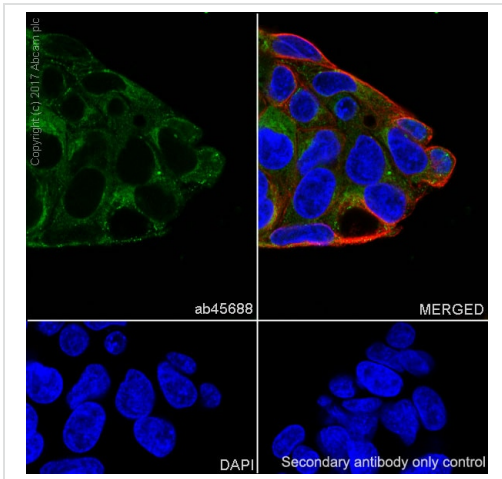
Lanes 1 - 2: Merged signal (red and green). Green - ab45688 observed at 262 kDa. Red - loading control, **ab18058**, observed at 130 kDa.

ab45688 was shown to react with Fibronectin in wild-type HAP1 cells as signal was lost in Fibronectin knockout cells. Wild-type and Fibronectin knockout samples were subjected to SDS-PAGE. Ab45688 and **ab18058** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/500 dilution and 1/2000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



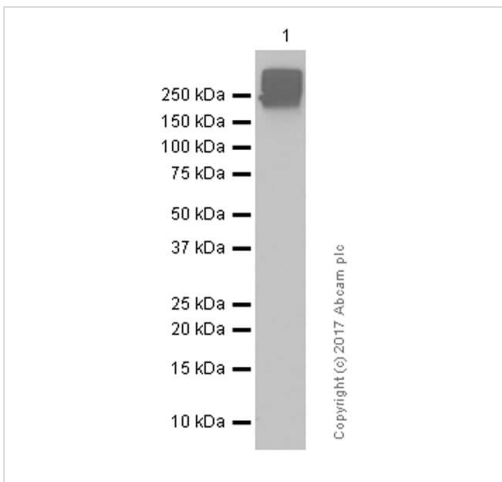
Flow Cytometry (Intracellular) - Anti-Fibronectin antibody [F14] (ab45688)

Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling Fibronectin with purified ab45688 at 1/150 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [F14] (ab45688)

Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling Fibronectin with Purified ab45688 at 1:500 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200. **ab150077** Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Western blot - Anti-Fibronectin antibody [F14] (ab45688)

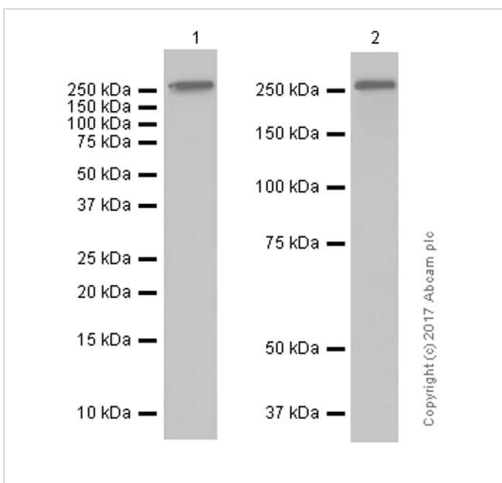
Anti-Fibronectin antibody [F14] (ab45688) at 1/10000 dilution (purified) + Human serum lysates at 15 µg

Secondary

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/2000 dilution

Predicted band size: 263 kDa

Blocking and diluting buffer: 5% NFDm/TBST.



Western blot - Anti-Fibronectin antibody [F14] (ab45688)

All lanes : Anti-Fibronectin antibody [F14] (ab45688) at 1/10000 dilution (purified)

Lane 1 : Mouse serum lysates

Lane 2 : Rat serum lysates

Lysates/proteins at 15 µg per lane.

Secondary

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

Predicted band size: 263 kDa

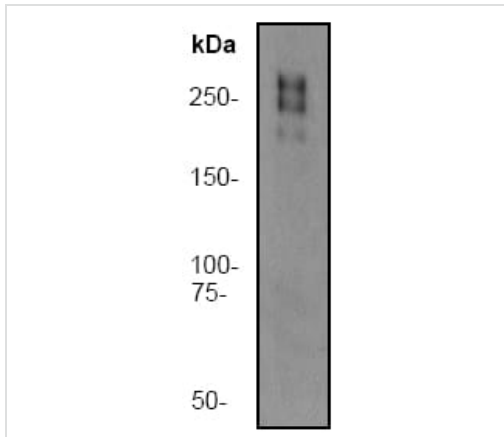
Observed band size: 263 kDa

Blocking and diluting buffer: 5% NFDm/TBST

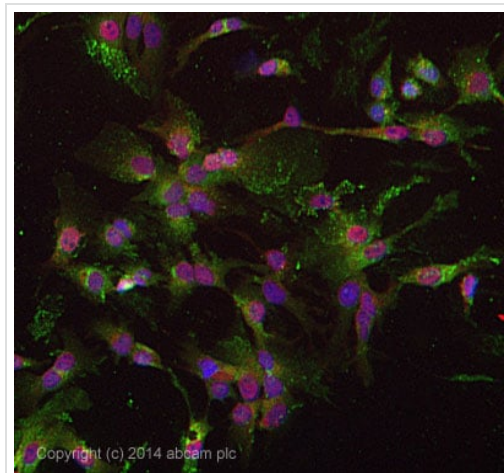
Anti-Fibronectin antibody [F14] (ab45688) at 1/5000 dilution
(unpurified) + human serum

Predicted band size: 263 kDa

Observed band size: 263 kDa



Western blot - Anti-Fibronectin antibody [F14]
(ab45688)



Immunocytochemistry/ Immunofluorescence - Anti-
Fibronectin antibody [F14] (ab45688)

ICC/IF image of unpurified ab45688 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 ab45688 at 1/250 dilution overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor[®] 488 goat anti-rabbit (**ab150081**) IgG (H+L) preadsorbed, used at a 1/1000 dilution for 1 hour. Alexa Fluor[®] 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43 μ M for 1 hour at room temperature.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-Fibronectin antibody [F14] (ab45688)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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