

Product datasheet

Anti-Fibronectin antibody [A17] ab26245

★★★★☆ 3 Abreviews 15 References 3 Images

Overview

Product name	Anti-Fibronectin antibody [A17]
Description	Mouse monoclonal [A17] to Fibronectin
Host species	Mouse
Specificity	There is no evidence for cross-reactivity with other connective tissue proteins (vitronectin, elastin, collagen, laminin).
Tested applications	Suitable for: IP, IHC-P, WB, ELISA, IHC-Fr, ICC/IF
Species reactivity	Reacts with: Chicken, Cow, Human
Immunogen	Tissue/ cell preparation (Cow) - Lysed bovine corneal endothelial cells and extracellular matrix.
Epitope	Epitope is located in the 120kD cell binding fragment.
General notes	This antibody inhibits integrin-mediated cell adhesion to the cell binding domain of fibronectin. It can be used to probe fibronectin conformation. Strong reaction is seen in ELISA with thrombospondin directly coated onto the microtiter well.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 15mM Sodium Azide Constituents: 0.5M Sodium chloride, 0.01M PBS, pH 7.4
Purification notes	Protein A/G purified
Primary antibody notes	This antibody inhibits integrin-mediated cell adhesion to the cell binding domain of fibronectin. It can be used to probe fibronectin conformation. Strong reaction is seen in ELISA with thrombospondin directly coated onto the microtiter well.
Clonality	Monoclonal
Clone number	A17
Myeloma	Sp2/0
Isotype	IgG1
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab26245** 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
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration.
WB	★★★★☆	1/100. Predicted molecular weight: 263 kDa. See Underwood et al J Cell Sci reference.
ELISA		1/30000. See Underwood et al J Cell Sci reference and J Immunol Methods reference.
IHC-Fr		Use at an assay dependent concentration. PLP-fixed.
ICC/IF	★★★★★	Use at an assay dependent concentration.

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

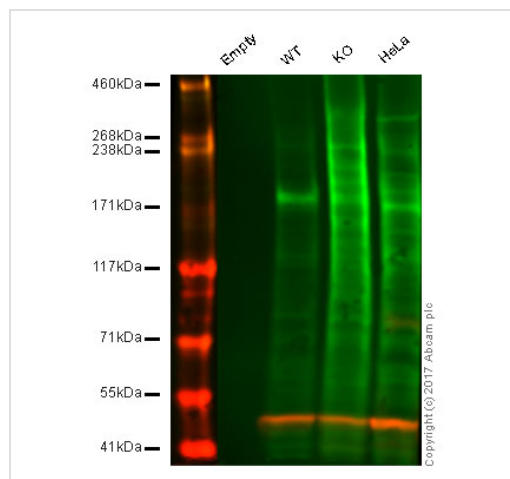
Ugl-Y1, Ugl-Y2 and Ugl-Y3 are present in the urine from 0 to 17 years of age.

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.



Western blot - Anti-Fibronectin antibody [A17] (ab26245)

Lane 1: Empty lane

Lane 2: Wild type HAP1 whole cell lysate (40 µg)

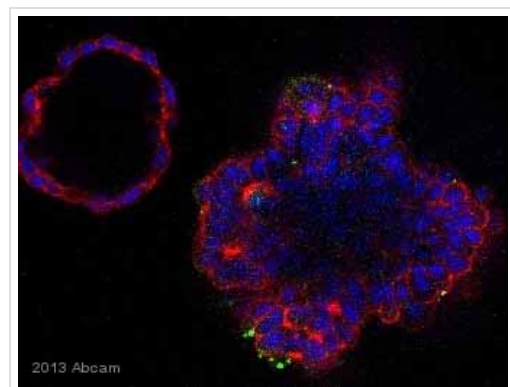
Lane 3: Fibronectin knockout whole cell lysate (40 µg)

Lane 4: HeLa whole cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green).

Green - ab26245 observed at 262 kDa. Red - loading control, [ab176560](#), observed at 50 kDa.

ab26245 was shown not to specifically react with Fibronectin when Fibronectin knockout samples were used. Wild-type and Fibronectin knockout samples were subjected to SDS-PAGE. ab26245 and [ab176560](#) (Rabbit anti alpha Tubulin loading control) were incubated overnight at 4°C at 1/100 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed [ab216772](#) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed [ab216777](#) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Fibronectin antibody [A17] (ab26245)

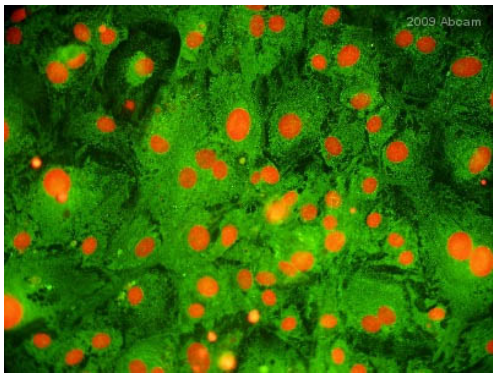
This image is courtesy of an anonymous Abreview

ab26245 staining Fibronectin in Human MCF-7 cells by ICC/IF

(Immunocytochemistry/immunofluorescence).

Cells were fixed with paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 10% BSA for 1 hours at 25°C.

Samples were incubated with primary antibody (1/250 in PBS + 5% BSA) for 18 hours at 4°C. An undiluted Alexa Fluor®488-conjugated Goat anti-mouse IgG polyclonal was used as the secondary antibody. Blue - DAPI, red - rhodamine phalloidin.



Immunocytochemistry/ Immunofluorescence -

Fibronectin antibody [A17] (ab26245)

This image is courtesy of an Abreview submitted by Dr Ann Van Soom

ab26245 staining fibronectin in bovine cumulus-oocyte complexes by ICC/IF (immunocytochemistry/immunofluorescence). Cells were PFA fixed and permeabilized in Triton X-100 prior to blocking in 0.1% serum for 30 minutes at 37°C. The primary antibody (1/100 in 10% goat serum in polyvinylpyrrolidone) was incubated with the sample for 1 hour at 37°C. An FITC-conjugated goat anti-mouse polyclonal (1/100) was used as the secondary. Chromatin was stained red by using the nuclear DNA stain propidium iodide.

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