abcam

Product datasheet

Biotin Anti-Fibronectin antibody ab6584

41 References 3 Images

Overview

Product name Biotin Anti-Fibronectin antibody

DescriptionBiotin Rabbit polyclonal to Fibronectin

Host species Rabbit

Conjugation Biotin

Specificity negligible cross-reactivity with Type I, II, III, IV, V or VI Collagens or Laminin. Non-specific cross

reaction of anti-Fibronectin antibodies with other human serum proteins or non-Fibronectin

extracellular matrix proteins is negligible.

Tested applications Suitable for: IHC-P, WB

Species reactivity Reacts with: Human

Predicted to work with: Mammals

Immunogen Full length native protein (purified) corresponding to Human Fibronectin. Purified from human

plasma by binding to a denatured gelatin column followed by elution with high concentrations of

arginine. The eluted material was further purified by gel filtration.

Database link: P02751

General notes

This antibody is well suited to detect extracellular matrix proteins in normal as well as disease state tissues. Disruption of tissue organization is the hallmark of neoplasia. Malignant lesions can be distinguished from benign by examining the breakdown of basement membranes and loss of 3-dimensional architecture. Malignant cells are presumed to use matrix metalloproteases to degrade barriers created by the extracellular matrix which then allows metastasis to occur. Collagenases, stomelysins and gelatinases can collectively degrade all of the various components of the extracellular matrix, including fibrillar and non-fibrillar collagens and basement membrane glycoproteins.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 pH: 6.5

Preservative: 0.01% Sodium azide

Constituents: 0.878% Sodium chloride, 1% BSA, 0.424% Tripotassium orthophosphate

Purity Immunogen affinity purified

Purification notesThis product has been prepared by immunoaffinity chromatography using immobilized antigens

followed by extensive cross-adsorption against human serum proteins and collagen and non-collagen extracellular matrix proteins to remove any unwanted specificities. Typically less than 1% cross reactivity against other extracellular matrix proteins was detected by ELISA against purified

standards.

Primary antibody notes This antibody is well suited to detect extracellular matrix proteins in normal as well as disease

state tissues. Disruption of tissue organization is the hallmark of neoplasia. Malignant lesions can be distinguished from benign by examining the breakdown of basement membranes and loss of 3-dimensional architecture. Malignant cells are presumed to use matrix metalloproteases to degrade barriers created by the extracellular matrix which then allows metastasis to occur. Collagenases, stomelysins and gelatinases can collectively degrade all of the various

components of the extracellular matrix, including fibrillar and non-fibrillar collagens and basement

membrane glycoproteins.

Clonality Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab6584 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 | | 1/50 - 1/200. |
| WB | | 1/5000 - 1/10000. |

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 diseaseGlomerulopathy with fibronectin deposits 2

Sequence similaritiesContains 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 Sulfated.

modifications 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

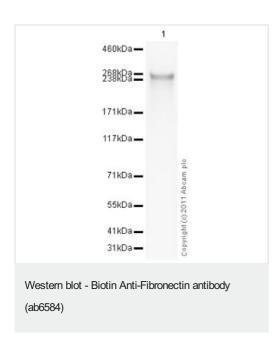
glutamine and the epsilon-amino group of a lysine residue, forming homopolymers and heteropolymers (e.g. fibrinogen-fibronectin, collagen-fibronectin heteropolymers).

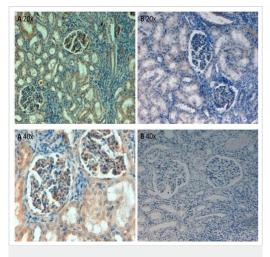
Phosphorylated by FAM20C in the extracellular medium.

Proteolytic processing produces the C-terminal NC1 peptide, anastellin.

Cellular localization Secreted, extracellular space, extracellular matrix.

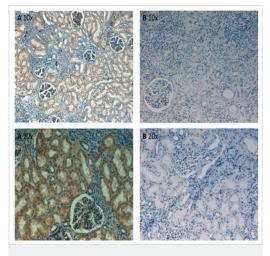
Images





Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Biotin Anti-Fibronectin antibody (ab6584)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human kidney tissue sections at pH 6.0, labelling Fibronectin with ab6584 at a concentration of 10 μ g/mL for 1 hour at room temperature. The secondary used was a rabbit peroxidase conjugate at a 1/10,000 dilution, incubated for 45 minutes at room temperature. Fibronectin is shown as a brown hue against a purple counterstain labelling nuclear DNA. The negative control on right (B) is without the primary antibody. Magnifications are as shown.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Biotin Anti-Fibronectin antibody (ab6584)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded human kidney tissue sections at pH 9.0, labelling Fibronectin with ab6584 at a concentration of 10 μ g/mL for 1 hour at room temperature. The secondary used was a rabbit peroxidase conjugate at a 1/10,000 dilution, incubated for 45 minutes at room temperature. Fibronectin is shown as a brown hue against a purple counterstain labelling nuclear DNA. The negative control on right (B) is without the primary antibody. Magnifications are as shown.

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