## Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Fibronectin antibody</th>
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</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to Fibronectin</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
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<td><strong>Tested applications</strong></td>
<td>Suitable for: ICC/IF, WB, IP, IHC-FoFr, IHC-P, IHC-Fr</td>
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<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat, Hamster, Cow, Dog, Human, African green monkey, Chinese hamster, Syrian hamster</td>
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<td><strong>Immunogen</strong></td>
<td>Fibronectin isolated from a pool of normal human plasma.</td>
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<td><strong>Positive control</strong></td>
<td>IHC-Fr: Mouse colon and embryonic heart tissue. IHC-P: Human kidney tissue. WB: Human colon lysate; HepG2 and NIH/3T3 cell lysate. ICC/IF: HeLa cells.</td>
</tr>
</tbody>
</table>

### General notes

- **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: 0.05% Sodium azide
  - Constituent: 1% BSA
- **Purity**: Affinity purified
- **Clonality**: Polyclonal
- **Isotype**: IgG
- **Light chain type**: unknown

## Applications

Our [Abpromise guarantee](#) covers the use of **ab2413** in the following tested applications.

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

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**Application | Abreviews | Notes**

| ICC/IF | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. |
| WB | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. Detects a band of approximately 285 kDa (predicted molecular weight: 262 kDa). |
| IP | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. Used at 1μg/ml for 1 hr 30 min on renal carcinoma cell line 786-0 (see Abreview). |
| IHC-FoFr | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. |
| IHC-P | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. |
| IHC-Fr | 🟢🟢🟢🟢🟢 | Use at an assay dependent concentration. This antibody may be diluted to a titer of 1/50 - 1/250 in an ABC method. We suggest an incubation period of 30 minutes at room temperature. |
Paraformaldehyde-fixed frozen section of mouse colon tissue stained for Fibronectin (green) using ab2413 at 1/200 dilution in immunohistochemical analysis, followed by Alexa Fluor® 488 conjugated Goat anti-Rabbit IgG (H+L).

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human kidney tissue, staining Fibronectin with ab2413.

All lanes: Anti-Fibronectin antibody (ab2413) at 1 µg/ml

Lane 1: Human colon tissue lysate - total protein (ab30051)
Lane 2: HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 3: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size: 262 kDa
Observed band size: 285 kDa
why is the actual band size different from the predicted?

Paraformaldehyde-fixed frozen section of mouse embryonic heart tissue stained for Fibronectin (green) using ab2413 at 1/100 dilution in immunohistochemical analysis, followed by Alexa Fluor® 488 conjugated Donkey anti-Rabbit IgG.
Nuclear counterstain: DAPI (blue).

ICC/IF image of ab2413 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab2413, 1 µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue). This antibody also gave a positive IF result in Hek293, HepG2 and MCF7 cells.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Fibronectin antibody (ab2413)

ab2413 staining Fibronectin in human kidney tissue section by IHC-P (Formalin/PFA-fixed paraffin embedded tissue sections). Tissue sections were incubated with ab2413 at a dilution of 1:250 for one hour. Heat mediated antigen retrieval technique was used with citrate buffer at pH 6.0. DAB staining was done with a biotinylated secondary for 45 min at RT at a concentration of 1:1000.

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