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# anti-Fibronectin antibody

2 Images



Publication



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| Quantity:                   | 100 μg   |
|-----------------------------|--|
| Target:                     | Fibronectin  |
| Reactivity:                 | Human  |
| Host:                       | Rabbit   |
| Clonality:                  | Polyclonal   |
| Application:                | Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP)   |
| Product Details             |  |
| Immunogen:                  | Immunogen: Fibronectin was 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. Immunization occurred after single-band purity was assessed by SDS-PAGE.  Immunogen Type: Native Protein  |
| Isotype:                    | IgG  |
| Cross-Reactivity (Details): | Typically less than 1% cross reactivity against other extracellular matrix proteins was detected by ELISA against purified standards. This antibody reacts with human Fibronectin and has 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. |
| Purification:               | This 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.   |

### **Target Details**

| Target:     | Fibronectin   |  |
|-------------|---|--|
| Abstract:   | Fibronectin Products  |  |
| Background: | Synonyms: CIG antibody, Cold insoluble globulin antibody, LETS antibody, Migration stimulating      |  |
|             | factor antibody, MSF antibody, Transformation sensitive protein. Antibody                           |  |
|             | Background: Human fibronectin has a molecular weight of 450,000 daltons when purified in an         |  |
|             | intact form from plasma. Fibronectin is a glycoprotein synthesized in the liver for the circulating |  |
|             | blood plasma form, and is synthesized by many mesenchymal cells, for the extracellular matrix       |  |
|             | form. It is composed of two similar, but not identical protein chains, which are linked by two      |  |
|             | disulfide linkages at the C-terminal end of the chains. The chains are composed of domains          |  |
|             | which have specific secondary structures linked together by regions which are especially            |  |
|             | susceptible to proteolytic action. For this reason, detection by immunoblot (western) may show      |  |
|             | considerable variability in the observed apparent molecular weights, which is predicated on the     |  |
|             | source of the fibronectin, and to what degree proteolysis has occurred. Bands approximately         |  |
|             | 225 kDa should be observed after SDS-PAGE when reducing and denaturing conditions are               |  |
|             | used.   |  |
|             | Gene Name: FN1  |  |
| Gene ID:    | 2335  |  |
| UniProt:    | P02751  |  |

## **Application Details**

**Application Notes:** 

Immunohistochemistry Dilution: 1:50 - 1:200

Application Note: Anti-Fibronectin antibodies have been used for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, for immunoprecipitation and for western blotting for highly sensitive qualitative analysis. Rockland's anti-Fibronectin detects intact fibronectin (Invitrogen, Cat. No. 33016-015) by western blot after digestion by Matrix Metalloproteinase-3 (MMP-3) overnight at 37° C. Separation was performed using a 4-12 % Tris-Glycine gel. Under these conditions a sizeable, dark band at ~220 kDa representing the undigested fibronectin, as well as many, smaller bands representing the variably sized fragments resulting from fibronectin digestion by MMP-3 were noted. For immunohistochemistry paraffin embedded tissue preparation is recommended.

Western Blot Dilution: 1:5,000 - 1:10,000 Immunoprecipitation Dilution: 1:100 ELISA Dilution: 1:5,000 - 1:10,000

Restrictions: For Research Use only

### Handling

| Format:            | Liquid   |
|--------------------|--|
| Concentration:     | 1.0 mg/mL  |
| Buffer:            | Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2<br>Stabilizer: None   |
| Preservative:      | Sodium azide   |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.   |
| Storage:           | 4 °C,-20 °C  |
| Storage Comment:   | Store vial at 4° C prior to opening. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. |
| Expiry Date:       | 12 months  |

#### **Publications**

Product cited in:

Ida, Hikage, Itoh, Ida, Ohguro: "Prostaglandin F2α agonist-induced suppression of 3T3-L1 cell adipogenesis affects spatial formation of extra-cellular matrix." in: **Scientific reports**, Vol. 10, Issue 1, pp. 7958, (2020) (PubMed).

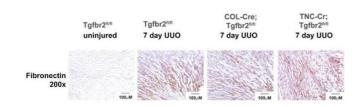
Kumar Gupta, Sarkar, Wertheim, Pan, Carroll, Oxburgh: "Asynchronous mixing of kidney progenitor cells potentiates nephrogenesis in organoids." in: **Communications biology**, Vol. 3, Issue 1, pp. 231, (2020) (PubMed).

Hwang, Huang, Burwell, Peterson, Connor, Weiss, Yu, Li: "In Situ Imaging of Tissue Remodeling with Collagen Hybridizing Peptides." in: **ACS nano**, Vol. 11, Issue 10, pp. 9825-9835, (2019) (PubMed).

Tanaka, Ng, Yang Yu, Casco-Robles, Maruo, Tsonis, Chiba: "A developmentally regulated switch from stem cells to dedifferentiation for limb muscle regeneration in newts." in: **Nature communications**, Vol. 7, pp. 11069, (2016) (PubMed).

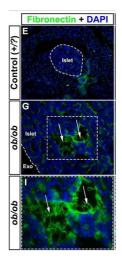
Fetting, Guay, Karolak, Iozzo, Adams, Maridas, Brown, Oxburgh: "FOXD1 promotes nephron progenitor differentiation by repressing decorin in the embryonic kidney." in: **Development** (Cambridge, England), Vol. 141, Issue 1, pp. 17-27, (2014) (PubMed).

# Validation report #300049 for Immunohistochemistry (IHC)



#### **Immunohistochemistry**

**Image 1.** Fibronectin staining using ABIN5596760 were performed on 7 day UUO kidneys. Source: PMC4556568



#### **Immunohistochemistry**

**Image 2.** Immunohistochemical assessment of proteins involved in blood coagulation in ob/ob pancreata. Photomicrographs of representative pancreatic cryosections from lean control (E,F) and ob/ob (G,H) pancreata at 52 weeks of age labeled for Fibronectin (Green E,G) (ABIN5596760). Source: PMC5054357