

Anti-Fibronectin/FN1 Antibody Picoband®

Catalog Number: A00564-1

About FN1

Fibronectin is a high-molecular weight glycoprotein of the extracellular matrix that binds to membrane-spanning receptor proteins called integrins. It is mapped to 2q35. This gene encodes fibronectin, a glycoprotein present in a soluble dimeric form in plasma, and in a dimeric or multimeric form at the cell surface and in extracellular matrix. The encoded preproprotein is proteolytically processed to generate the mature protein. Fibronectin is involved in cell adhesion and migration processes including embryogenesis, wound healing, blood coagulation, host defense, and metastasis. The gene has three regions subject to alternative splicing, with the potential to produce 20 different transcript variants, at least one of which encodes an isoform that undergoes proteolytic processing. The full-length nature of some variants has not been determined.

Overview

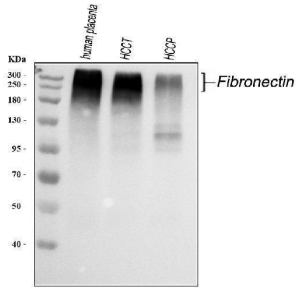
Product Name	Anti-Fibronectin/FN1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Fibronectin/FN1 Antibody Picoband® catalog # A00564-1. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P02751

Technical Details

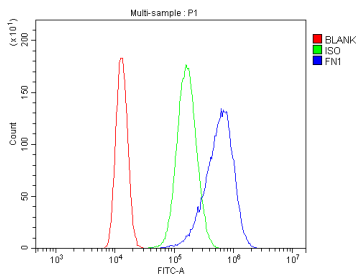
Immunogen	Purified human Fibronectin derived.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5ug/ml Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells ELISA, 0.1-0.5ug/ml

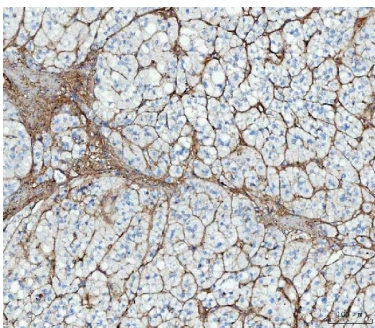
Anti-Fibronectin/FN1 Antibody Picoband® (A00564-1) Images



Western blot analysis of FN1 using anti-FN1 antibody (A00564-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human placenta tissue lysates, Lane 2: human hepatocellular carcinoma tumor tissue (HCCT) lysates, Lane 3: human hepatocellular carcinoma paracancerous tissue (HCCP) lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FN1 antigen affinity purified polyclonal antibody (Catalog # A00564-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for FN1 at approximately 220-400 kDa. The expected band size for FN1 is at 272 kDa.

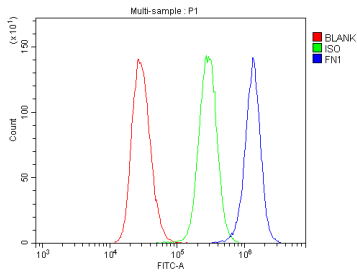


4. Flow Cytometry analysis of CACO-2 cells using anti-FN1 antibody (A00564-1). Overlay histogram showing CACO-2 cells stained with A00564-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-FN1 Antibody (A00564-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

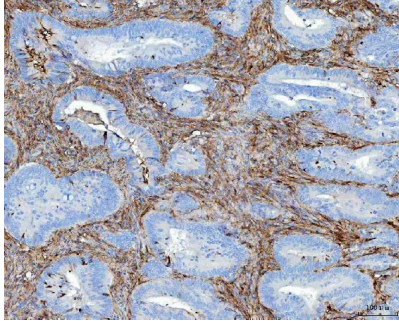


IHC analysis of FN1 using anti-FN1 antibody (A00564-1). FN1 was detected in a paraffin-embedded section of human adrenocortical adenoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-FN1 Antibody (A00564-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

5. Flow Cytometry analysis of HeLa cells using anti-FN1 antibody (A00564-1). Overlay histogram showing HeLa cells stained with A00564-1 (Blue line). To facilitate intracellular



staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-FN1 Antibody (A00564-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC analysis of FN1 using anti-FN1 antibody (A00564-1). FN1 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-FN1 Antibody (A00564-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

18 Publications Citing This Product

1. PubMed ID: 10.1016/j.vetmic.2017.07.010, Fibronectin-/fibrinogen-binding protein (FBPS) is not a critical virulence factor for the Streptococcus suis serotype 2 strain ZY05719
2. PubMed ID: -, Yang, Y., Deng, R., Chen, Z., Yao, L., Yang, X., & Xiang, D. (2021). Piperazine ferulate attenuates high glucose-induced mesangial cell injury via the regulation of p66^{S^{hc}}. Molecular Medicine Reports, 23, 374. <https://doi.org/10.3892/mmr.2021.12013>
3. PubMed ID: 33581205, Lian Y, Zhu M, Chen J, Yang B, Lv Q, Wang L, Guo S, Tan X, Li C, Bu W, Ding W, Jia X, Feng L. Characterization of a novel polysaccharide from Moutan Cortex and its ameliorative effect on AGEs-induced diabetic nephropathy. Int J Biol Macromol. 2021 Feb 10;S0141-8130(2)

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