BOSTER BIOLOGICAL TECHNOLOGY
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888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Collagen IV/COL4A1 Antibody Picoband®

Catalog Number: PB9099

About COL4A1

COL4A1, also known as ICH or Collagen alpha-1 (IV), is a protein that in humans is encoded by the COL4A1 gene. It is mapped to 13q34. This gene encodes the major type IV alpha collagen chain of basement membranes. Like the other members of the type IV collagen gene family, this gene is organized in a head-to-head conformation with another type IV collagen gene so that each gene pair shares a common promoter. COL4A1 binds to alpha-1/beta-1 integrin and inhibits migration, proliferation, and tube formation by endothelial cells. It is also a potential therapeutic candidate for targeting tumor angiogenesis.

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Overview

Product Name	Anti-Collagen IV/COL4A1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Collagen IV/COL4A1 Antibody Picoband® catalog # PB9099. Tested in IF, 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	IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P02462

Technical Details

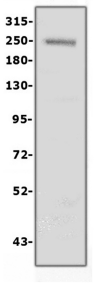
Immunogen	E.coli-derived human Collagen IV recombinant protein (Position: G1445-T1669). Human Collagen IV shares 97% amino acid (aa) sequence identity with mouse Collagen IV.

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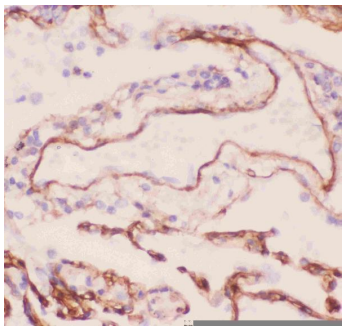
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunofluorescence, 2ug/ml, Human

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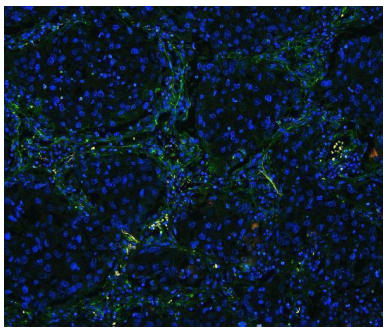
Anti-Collagen IV/COL4A1 Antibody Picoband® (PB9099) Images



Western blot analysis of Collagen IV using anti-Collagen IV antibody (PB9099). 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 50ug of sample under reducing conditions. Lane 1: human placenta tissue lysates After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-Collagen IV antigen affinity purified polyclonal antibody (Catalog # PB9099) 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 1:10000 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 Collagen IV at approximately 250KD. The expected band size for Collagen IV is at 161KD.



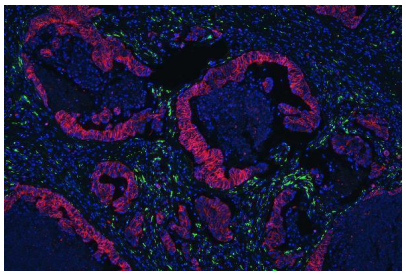
IHC analysis of Collagen using anti-Collagen antibody (PB9099). Collagen was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Collagen Antibody (PB9099) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of COL4A1 using anti-COL4A1 antibody (PB9099) COL4A1 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-COL4A1 Antibody (PB9099) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

IF analysis of COL4A1/E Cadherin using anti-COL4A1/E Cadherin antibody (PB9099/M00063-2) COL4A1/E Cadherin was detected in paraffin-embedded section of human colon cancer tissues. Heat mediated antigen retrieval was

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performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-COL4A1 Antibody (PB9099)/mouse anti E Cadherin Antibody(M00063-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) /Cy3 conjugated Goat anti mouse IgG(BA1031),were used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

44 Publications Citing This Product

1. PubMed ID: 10.1538/expanim.56.11, Severe Insulin Resistance and Moderate Glomerulosclerosis in a Minipig Model Induced by High-Fat/ High-Sucrose/ High-Cholesterol Diet

2. PubMed ID: 10.1590/S0100-879X2010007500132, The effect of down-regulation of Smad3 by RNAi on hepatic stellate cells and a carbon tetrachloride-induced rat model of hepatic fibrosis

3. PubMed ID: 10.3109/0886022X.2014.934694, Effects of uPA on mesangial matrix changes in the kidney of diabetic rats

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