

Anti-Collagen Type IV COL4A1 Antibody

Catalog Number: A01411

About COL4A1-COL4A6

Collagens are highly conserved throughout evolution and are characterized by an uninterrupted "Glycine-X-Y" triplet repeat that is a necessary part of the triple helical structure. For these reasons, it is often extremely difficult to generate antibodies with specificities to collagens. The development of 'type' specific antibodies is dependent on NON-DENATURED three-dimensional epitopes. Boster extensively purifies collagens for immunization from human and bovine placenta and cartilage by limited pepsin digestion and selective salt precipitation. This preparation results in a native conformation of the protein. Antibodies are isolated from rabbit antiserum and are extensively cross-adsorbed by immunoaffinity purification to produce 'type' specific antibodies. Greatly diminished reactivity and selectivity of these antibodies will result if denaturing and reducing conditions are used for SDS-PAGE and immunoblotting.

Overview

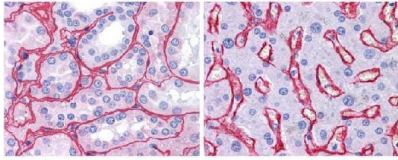
Product Name	Anti-Collagen Type IV COL4A1 Antibody
Reactive Species	Bovine, Human
Description	Boster Bio Anti-Collagen Type IV COL4A1 Antibody (Catalog # A01411). Tested in Dot blot, IHC applications. This antibody reacts with Human, Bovine.
Application	ELISA, IP, IF, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	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. Expiration date is one (1) year from date of opening. (Ship on wet ice.)
Host	Rabbit
Uniprot ID	P02462

Technical Details

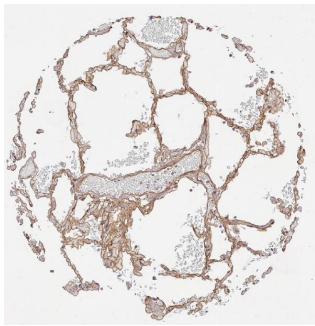
Immunogen	Collagen Type IV from human and bovine placenta
Predicted Reactive Species	Bovine, Mammalian
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid (sterile filtered)

Concentration	1.17 mg/mL by UV absorbance at 280 nm
Purification	Anti-Collagen Type IV has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens, human serum proteins and non-collagen extracellular matrix proteins to remove any unwanted specificities. Some class-specific anti-collagens may be specific for three-dimensional epitopes which may result in diminished reactivity with denatured collagen or formalin-fixed, paraffin embedded tissues. This antibody reacts with most mammalian Type IV collagens and has negligible cross-reactivity with Type I, II, III, V or VI collagens. Non-specific cross-reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins is negligible.
Suggested Dilutions	<p>ELISA: 1:5,000 - 1:50,000 IHC: 1:50 - 1:200 IF Microscopy: User optimized IP: 1:100 WB: 1:1,000 - 1:10,000</p> <p>Anti-Collagen Type IV has been tested by dot blot and IHC and is suitable for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, immunoprecipitation, native (non-denaturing, non-dissociating) PAGE, immunohistochemistry, and western blotting for highly sensitive qualitative analysis.</p>

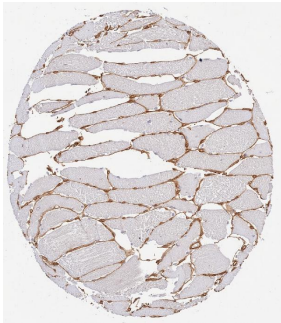
Anti-Collagen Type IV COL4A1 Antibody (A01411) Images



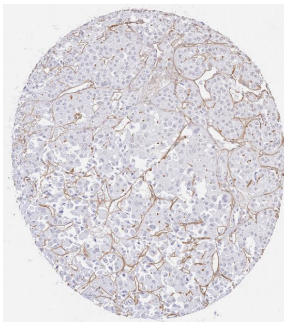
Boster anti collagen IV antibody (600-401-106 Lot 25440, 1:400, 45 min RT) showed strong staining in FFPE sections of human kidney (Left) with strong red staining observed in glomeruli; and liver (Right) with strong staining in sinusoids. Staining for both tissues was consistent with a basement membrane distribution. Slides were steamed in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes for antigen retrieval. Images provided courtesy of LifeSpan Biosciences, Seattle, WA



Immunohistochemistry results of Rabbit Anti-Collagen Type IV Antibody. Tissue: human lung tissue. Fixation: FFPE. Antigen Retrieval: HIER using Tris-EDTA-citrate buffer pH 7.8 for 5 min. Blocking: Peroxidase-Blocking Solution for 10 min. Primary Antibody: Anti-Collagen Type IV at 1:15 for 1 hr at 37 °C. Secondary Antibody: Dako REAL EnVision Detection Kit, Polymer-HRP, Rabbit/Mouse. Counterstain: Hematoxylin for 15 sec. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: basement membranes and vessels.



Immunohistochemistry results of Rabbit Anti-Collagen Type IV Antibody. Tissue: human skeletal muscle cells. Fixation: FFPE. Antigen Retrieval: HIER using Tris-EDTA-citrate buffer pH 7.8 for 5 min. Blocking: Peroxidase-Blocking Solution for 10 min. Primary Antibody: Anti-Collagen Type IV at 1:15 for 1 hr at 37 °C. Secondary Antibody: Dako REAL EnVision Detection Kit, Polymer-HRP, Rabbit/Mouse. Counterstain: Hematoxylin for 15 sec. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: cells surrounded by collagen IV fibers.



Immunohistochemistry results of Rabbit Anti-Collagen Type IV Antibody. Tissue: human renal oncocytoma. Fixation: FFPE. Antigen Retrieval: HIER using Tris-EDTA-citrate buffer pH 7.8 for 5 min. Blocking: Peroxidase-Blocking Solution for 10 min. Primary Antibody: Anti-Collagen Type IV at 1:15 for 1 hr at 37 °C. Secondary Antibody: Dako REAL EnVision Detection Kit, Polymer-HRP, Rabbit/Mouse. Counterstain: Hematoxylin for 15 sec. Substrate: DAB-Chromogen, Rabbit/Mouse. Staining/Results: dense collagen IV positive membranes surrounding tumor cell nests.

3 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2018.9635, Genistein attenuates renal fibrosis in streptozotocin-induced diabetic rats
2. PubMed ID: 30431100, Genistein attenuates renal fibrosis in streptozotocin-induced diabetic rats
3. PubMed ID: 25887589, Zhang H, Teng X, Liu Z, Zhang L, Liu Z. J Exp Clin Cancer Res. 2015 Feb 12;34:16. Doi: 10.1186/S13046-015-0132-Y.

Gene Expression Profile Analyze The Molecular Mechanism Of Cxcr7 Regulating Papillary Thyroid Carcinoma Growth And Metastasis.

Visit bosterbio.com/anti-collagen-type-iv-antibody-a01411-boster.html to see all 3 publications.

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Anti-Collagen Type IV COL4A1 Antibody

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