

Anti-Collagen Type II COL2A1 Antibody

Catalog Number: A00517

About COL2A1

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. Ideal for investigators involved in Cell Biology, Signal Transduction and Stem Cell research.

Overview

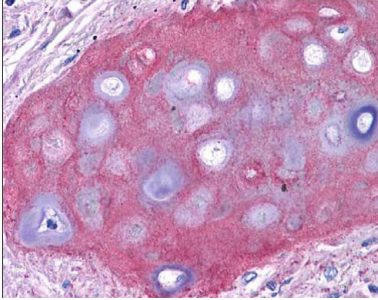
Product Name	Anti-Collagen Type II COL2A1 Antibody
Reactive Species	Bovine, Human
Description	Boster Bio Anti-Collagen Type II COL2A1 Antibody (Catalog # A00517). Tested in Dot blot, IHC applications. This antibody reacts with Human, Bovine.
Application	ELISA, IP, IF, IHC, WB
Clonality	Polyclonal
Formulation	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	P02458

Technical Details

Immunogen	Collagen Type II from human knee cartilage and bovine nasal cartilage.
Predicted Reactive Species	Bovine, Sheep
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG
Form	Liquid (sterile filtered)

Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	Collagen II Antibody has been prepared by immunoaffinity chromatography using immobilized antigens followed by extensive cross-adsorption against other collagens. 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 II collagens and has expected cross-reactivity with Type IV and VI and negligible cross-reactivity to Type I, III and V collagens. Non-specific cross reaction of anti-collagen antibodies with other human serum proteins or non-collagen extracellular matrix proteins has not been tested.
Suggested Dilutions	ELISA: 1:5,000 - 1:50,000 IHC: 1:50 - 1:400 IF Microscopy: User optimized IP: 1:100 WB: 1:1,000 - 1:10,000 Anti-Collagen Type II 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, immunohistochemistry, native (non-denaturing, non-dissociating) PAGE, and western blotting for highly sensitive qualitative analysis.

Anti-Collagen Type II COL2A1 Antibody (A00517) Images



Boster anti collagen II antibody (600-401-104 Lot 26014, 1:400, 45 min RT) showed moderate staining of in FFPE human bronchiolar cartilage (shown in image). Though not shown, faint to moderate staining of tonsillar squamous epithelium, prostatic stroma, breast, colon, placenta, and dermal connective tissues was also observed. All other tissues, including brain, breast epithelium, colon epithelium, heart, intestine, kidney, liver, lung, skeletal muscle, pancreas, spleen, testis, thymus, thyroid, and uterus were negative for staining. Slides were steamed in 0.01 M sodium citrate buffer, pH 6.0 at 99-100°C - 20 minutes for antigen retrieval. Image provided courtesy of LifeSpan Biosciences, Seattle, WA

26 Publications Citing This Product

1. PubMed ID: 10.3892/ijmm.2017.2885, Resveratrol inhibits the IL-1beta-induced expression of MMP-13 and IL-6 in human articular chondrocytes via TLR4/MyD88-dependent and -independent signaling cascades
2. PubMed ID: 31639402, Salah MM, Ashour AA, Abdelghany TM, Abdel-Aziz AH, Salama SA. Pirfenidone alleviates concanavalin A-induced liver fibrosis in mice. Life Sci. 2019 Dec 15; 239:116982. doi:10.1016/j.lfs.2019.116982. Epub 2019 Oct 19. PMID: 31639402.
3. PubMed ID: 33441130, Guo Z, Qiu C, Mecca C, Zhang Y, Bian J, Wang Y, Wu X, Wang T, Su W, Li X, Zhang W, Chen B, Xiang H. Elevated lymphotoxin-alpha (TNFbeta) is associated with intervertebral disc degeneration. BMC Musculoskelet Disord. 2021 Jan 13; 22(1):77. doi:10.1186/s12891-020-03934-7. PMID: 3344

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