Anti-Collagen Type III (RABBIT) Antibody - 600-401-105-0.1

Code: 600-401-105-0.1 **Size:** 100 µg

Product Description: Anti-Collagen Type III (RABBIT) Antibody - 600-401-105-0.1

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	COL3A1
Species Reactivity	human, bovine
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	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.
Synonyms	rabbit anti-Collagen Type III antibody, Collagen type III alpha 1 antibody, Collagen type III alpha antibody, EDS4A antibody, Ehlers Danlos syndrome type IV, autosomal dominant antibody, Fetal collagen antibody, COL3A1, Collagen alpha-1 (III) chain
Application Note	Anti-Collagen antibodies have been used 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.
Background	Rockland produces highly active antibodies and conjugates to collagens. 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. Rockland 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.
Purity And Specificity	Collagen III Antibody 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. Typically negligible cross-reactivity against other types of collagens was detected by ELISA against purified standards. 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 III collagens and has negligible cross-reactivity with Type I, II, IV, 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.
Assay Dilutions	User Optimized
ELISA	1:5,000 - 1:50,000
Western Blot	1:1,000 - 1:10,000
Immunohistochemistry	1:50 - 1:200
Other Assays	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Collagen Type III from human and bovine placenta
Specific Reference	Mak KM, Kwong AJ, Chu E, Hoo NM. (2011) Hepatic Steatosis, Fibrosis, and Cancer in Elderly Cadavers. Cancer Biology. 5 DEC 2011. DOI: 10.1002/ar.21525. Santanu Chakraborty, Elaine E. Wirrig, Robert B. Hinton, Walter H. Merrill, Douglas B. Spicer, Katherine E. Yutzey. (2010) Twist1 promotes heart valve cell proliferation and extracellular matrix gene expression during development in vivo and is expressed in human diseased aortic valves. https://doi.org/10.1016/j.ydbio.2010.08.021.

Related Products

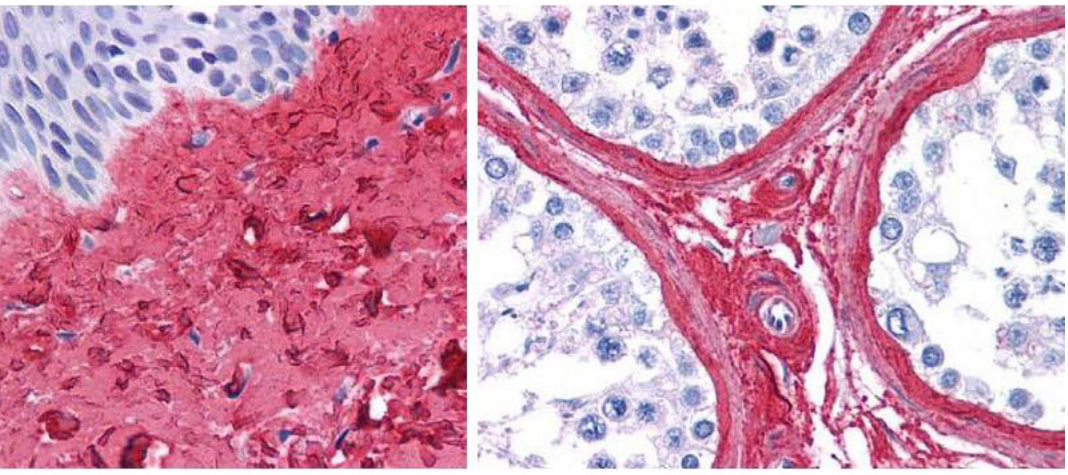
001-001-105	Bovine COLLAGEN Type III - 001-001-105
009-001-105	Human COLLAGEN Type III - 009-001-105
600-401-105-0.5	Anti-Collagen Type III (RABBIT) Antibody - 600-401-105-0.5
600-406-105	Anti-Collagen Type III (RABBIT) Antibody Biotin Conjugated - 600-406-105

Related Links

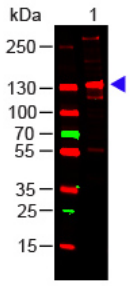
	UniProtKB - P02461
http://www.uniprot.org/uniprot/P02461	
NCBI - P02461.4	http://www.ncbi.nlm.nih.gov/protein/P02461.4
	GeneID - 1281

Images

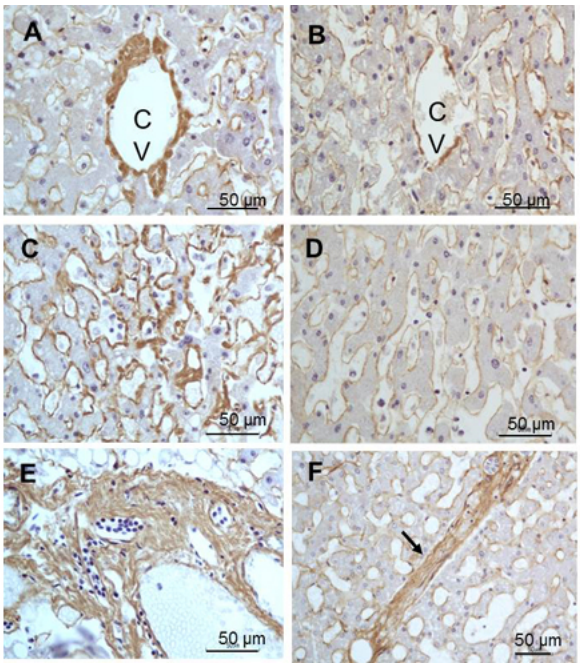
1	Rockland anti collagen III antibody (600-401-105 Lot 26016, 1:400, 45 min RT) showed strong staining in FFPE sections of human skin(left, dermis) with moderate to strong red staining and testis (right) where strong staining was observed within connective tissue between seminiferous tubules. The antibody showed strong extracellular staining within connective tissues across many organs with minimal background staining. 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



2	Western Blot of Rabbit Anti-COLLAGEN III AntibodyLane 1: Human Collagen III Load: 100 ng per lanePrimary antibody: Collagen III Antibody at 1:1000 o/n at 4°CSecondary antibody: DyLight™ 649 Goat anti-rabbit at 1:20,000 for 30 min at RTBlock: MB-070 for 30 min at RTPredicted/Observed size: 138 kDa, 138 kDa



3	Immunohistochemistry of Rabbit Anti-collagen type III antibody. Tissue: right lobe of the liver section. A:Central Vein (CV) fibrosis, B: Non-fibrotic CV, C: Perisinusodial fibrosis, D: Non-fibrotic area, E: Protat tract fibrosis, F: Septal fibrosis (arrow).Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required.Primary antibody: Anti-collagen type III at 1:500 for 4°C for 24hr.Secondary antibody: Peroxidase biotin-streptavidin rabbit secondary antibody at 1:10,000 for 45 min at RT.Localization: Anti-collagen type III is intra and extracellular.Staining: 3.3'-diaminobenzidine tetrahydrochloride was used as the chromogen. Nuclei were counterstained purple with hematoxylin.



Disclaimer

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