

R1040**Polyclonal Antibody to Collagen type III - Purified****Alternate names:**

COL3A1

Quantity:

0.1 mg

Concentration:

1.0 mg/ml (by UV absorbance at 280 nm)

Background:

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. Collagens for immunization are purified 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.

Uniprot ID:[P02461](#)**NCBI:**[9606](#)**GeneID:**[1281](#)**Host / Isotype:**

Rabbit / IgG

Immunogen:

Collagen type III purified from Human and Bovine placenta.

Gene name: COL3A1**Format:****State:** Liquid (sterile filtered) purified Ig fraction**Purification:** Immunoaffinity Chromatography**Buffer System:** 0.125 M Sodium Borate, 0.075M Sodium Chloride, 0.005M EDTA, pH 8.0**Preservatives:** 0.01% (w/v) Sodium Azide**Stabilizers:** None**Applications:**

Anti-Collagen antibodies have been used for indirect trapping ELISA for quantitation of antigen in serum using a standard curve, for Immunoprecipitation and for native (non-denaturing, non-dissociating) PAGE and Western blotting for highly sensitive qualitative analysis.

Recommended Dilutions:

ELISA: 1/5,000-1/50,000.

Western blot: 1/1,000-1/10,000.

Immunoprecipitation: 1/100.

Immunohistochemistry: 1/50-1/200.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This product 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 less than 1% 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.

Species: Human and Bovine.

Other species not tested.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. For extended storage, mix with an equal volume of glycerol. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

Product Citations:

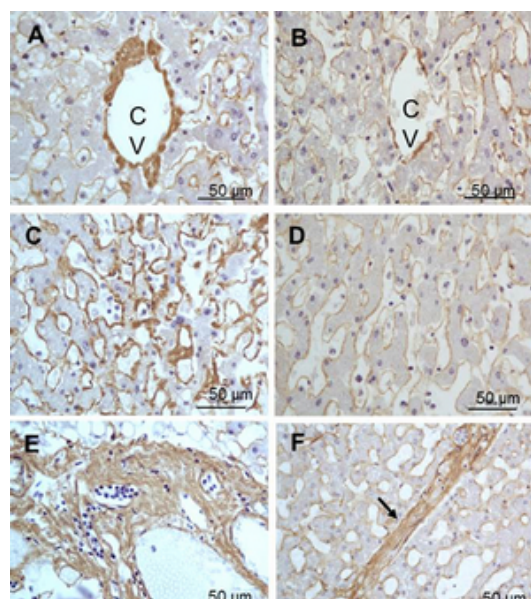
Purchased from Acris:

1. Malischewski, A;Moreira, R;Hurtado, L;Gesché, V;Schmitz-Rode, T;Jockenhoevel, S;Mela, P. Umbilical cord as human cell source for mitral valve tissue engineering - venous vs. arterial cellsBiomed Tech (Berl). PubMed PMID: 28453437.

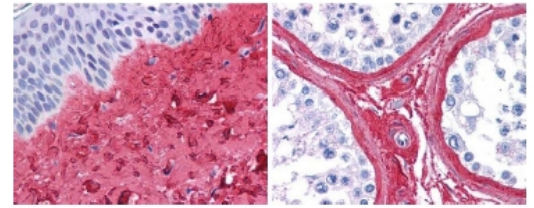
Originator or purchased from resellers:

1. 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.

Pictures: Immunohistochemistry of tissue of right lobe of the liver section (Formalin-fixed, Paraffin-embedded). A: Central Vein (CV) fibrosis, B: Non-fibrotic CV, C: Perisinusoidal fibrosis, D: Non-fibrotic area, E: Protat tract fibrosis, F: Septal fibrosis (arrow) using Collagen type III alpha 1 chain antibody Cat.-No. R1040 at 1:500 for 4°C for 24hr. Secondary antibody: Peroxidase biotin-streptavidin rabbit secondary antibody and DAB as chromogen. Nuclei were counterstained purple with hematoxylin.



R1040 Collagen III Antibody (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



Western blot of rabbit collagen III alpha 1 chain antibody Cat.-No. R1040, Lane 1: human collagen III load: 100 ng per lane, primary antibody: Collagen III antibody at 1:1000 o/n at 4°C, secondary antibody: DyLight™ 649 goat anti-rabbit.

