

**AF5810****Monoclonal Antibody to Collagen Type III -Aff. Purified -****Alternate names:**

COL3A1

**Quantity:**

0.1 mg

**Concentration:**

0.5 mg/ml

**Background:**

Collagen III is a fibrillar collagen that is found in extensible connective tissues such as skin, lung, and the vascular system, frequently in association with type I Collagen. Mutations in the gene are associated with Ehlers Danlos syndrome type IV, and with aortic and arterial aneurysms. Although alternate transcripts have been detected for this gene, they are the result of mutations; these mutations alter splicing, often leading to the exclusion of multiple exons.

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

Mouse / IgG1

**Recommended Isotype**

SM10P (for use in human samples), AM03095PU-N

**Controls:****Clone:**

III-53

**Immunogen:**

Human placenta.

**Format:****State:** Lyophilized purified Ig fraction.**Purification:** Affinity Chromatography on Protein A.**Buffer System:** 0.1 M Na-Phosphate buffer, pH 7.0**Stabilizers:** 0.5% BSA (Protease-free)**Reconstitution:** Resuspend the lyophilized antibody with 1 ml of ddH<sub>2</sub>O.**Applications:****Western blot:** 2 µg/ml.

**Immunohistochemistry on Frozen and Paraffin Sections:** 1-10 µg/ml, Paraffin sections may require heat mediated antigen retrieval with 10mM citrate buffer pH 6.0; According to customer information this antibody can be used on decalcified tissue pretreated with 0.2% hyaluronidase in sodium acetate buffer for 1h at 37°C. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

The antibody specifically reacts with human Collagen III and cross-reacts with rabbit.

**Species Reactivity:****Tested:** Human and Rabbit.**Add. Information:**

Customer feedback/publication describes reactivity with dog (see Rortveit, 2012 for reference).

- Storage:** Store lyophilized at 2-8°C for 6 months or at -20°C long term.  
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.  
Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.
- Product Citations:** **Purchased from Acris:**
1. Rørtveit R, Lingaas F, Bønsdorff T, Eggertsdóttir AV, Grøndahl AM, Thomassen R, et al. A canine autosomal recessive model of collagen type III glomerulopathy. *Lab Invest.* 2012 Oct;92(10):1483-91. doi: 10.1038/labinvest.2012.112. Epub 2012 Aug 13. PubMed PMID: 22890554.
  2. Koulikovska M, Rafat M, Petrovski G, Veréb Z, Akhtar S, Fagerholm P, et al. Enhanced Regeneration of Corneal Tissue Via a Bioengineered Collagen Construct Implanted by a Nondisruptive Surgical Technique. *Tissue Eng Part A.* 2014 Nov 20. PubMed PMID: 25412075.
  3. Karpus ON, Kiener HP, Niederreiter B, Yilmaz-Elis A, van der Kaa J, Ramaglia V, et al. CD55 deposited on synovial collagen fibers protects from immune complex-mediated arthritis. *Arthritis Res Ther.* 2015 Jan 17;17(1):6. PubMed PMID: 25596646.
- General Readings:**
1. Mayne, R. et al. Isolation and partial characterization of basement membrane-link collagens from bovine thoracic aorta. *Artery*, 7. 262-280, 1980
  2. Muragaki, Y. et al., Experimental study on alteration of collagen metabolism in liver fibrosis. *J. Wakayama Med. Soc.*, 36. 195-208, 1985 (in Japanese)
  3. Van der Loos, C. M. et al., *Histochemical J.*, 26, 347-354, 1994.
  4. Kumagai J, Sarkar K, Uhthoff HK, Okawara Y, Ooshima A. Immunohistochemical distribution of type I, II and III collagens in the rabbit supraspinatus tendon insertion. *J Anat.* 1994 Oct;185 ( Pt 2):279-84. PubMed PMID: 7961134.
  5. Marijianowski MM, Teeling P, Mann J, Becker AE. Dilated cardiomyopathy is associated with an increase in the type I/type III collagen ratio: a quantitative assessment. *J Am Coll Cardiol.* 1995 May;25(6):1263-72. PubMed PMID: 7722119.
- Pictures:** Immunohistochemical staining of human skin paraffin sections using Collagen type III antibody clone III-53.

