## Overview

**Product name** | Anti-Collagen III antibody [FH-7A]
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**Description** | Mouse monoclonal [FH-7A] to Collagen III
**Host species** | Mouse

**Tested applications**

| Suitable for: | Dot blot, ELISA, IHC-Fr, WB, IHC-P, ICC/IF, Indirect ELISA |

**Species reactivity**

| Reacts with: | Rat, Human |

**Immunogen**

Full length native protein (purified) (Human).

**Positive control**

IHC: Human skin sections. WB: recombinant collagen III.

**General notes**

Type III collagen, [a1(III)]3, is an approx. 300 kDa molecule, found predominantly in skin, blood vessels, liver, placenta, tongue, and thymus. Collagen type III forms cofibrils with type I and/or V collagens in a number of tissues of mesenchymal origin, such as skin, tendon, ligaments, and bone. This collagen type is involved, directly or indirectly in several genetic diseases, including Ehlers-Danlos type IV disease.

Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause. We would recommend antibody **ab7778** as a replacement.

## Properties

**Form** | Liquid

**Storage instructions**


**Storage buffer**

Preservative: 0.097% Sodium azide
Constituent: Whole serum

**Purity** | Ascites

**Clonality** | Monoclonal

**Clone number** | FH-7A

**Isotype** | IgG1
Collagen type III occurs in most soft connective tissues along with type I collagen.

**Involvement in disease**

Defects in COL3A1 are a cause of Ehlers-Danlos syndrome type 3 (EDS3) [MIM:130020]; also known as benign hypermobility syndrome. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS3 is a form of Ehlers-Danlos syndrome characterized by marked joint hyperextensibility without skeletal deformity.

Defects in COL3A1 are the cause of Ehlers-Danlos syndrome type 4 (EDS4) [MIM:130050]. EDS is a connective tissue disorder characterized by hyperextensible skin, atrophic cutaneous scars due to tissue fragility and joint hyperlaxity. EDS4 is the most severe form of the disease. It is characterized by the joint and dermal manifestations as in other forms of the syndrome, characteristic facial features (acrogeria) in most patients, and by proneness to spontaneous rupture of bowel and large arteries. The vascular complications may affect all anatomical areas. Defects in COL3A1 are a cause of susceptibility to aortic aneurysm abdominal (AAA) [MIM:100070]. AAA is a common multifactorial disorder characterized by permanent dilation of the abdominal aorta, usually due to degenerative changes in the aortic wall. Histologically, AAA is characterized by signs of chronic inflammation, destructive remodeling of the extracellular matrix, and depletion of vascular smooth muscle cells.

**Sequence similarities**

Belongs to the fibrillar collagen family.
Contains 1 fibrillar collagen NC1 domain.
Contains 1 VWFC domain.

**Post-translational modifications**

Proline residues at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.
O-linked glycan consists of a Glc-Gal disaccharide bound to the oxygen atom of a post-translationally added hydroxyl group.

**Cellular localization**

Secreted > extracellular space > extracellular matrix.

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Our Abpromise guarantee covers the use of **ab6310** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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**Target**

**Function**

Collagen type III occurs in most soft connective tissues along with type I collagen.

**Involvement in disease**

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Staining of formalin-fixed, paraffin-embedded rat skin with 1:4,000 ab6310 using biotin/ExtrAvidin®-Peroxidase.

All lanes: Anti-Collagen III antibody [FH-7A] (ab6310) at 1/500 dilution

Lane 1: Reduced, denatured Collagen III protein

Lane 2: Native Collagen III protein

Lysates/proteins at 5 µg per lane.

Secondary

All lanes: Goat anti-mouse HRP at 1/2000 dilution

Developed using the ECL technique.

Exposure time: 1 minute
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Collagen III antibody [FH-7A] (ab6310)

This image is courtesy of an Abreview submitted by Birgitta Weijdegard

ab6310 at 1/600 dilution staining preovulatory follicle and whole ovary tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Antigens were retrieved by boiling with an antigen unmasking solution for 20 min at 120ºC in an autoclave and then cooled down in water for 5 minutes. The tissue sections were formaldehyde fixed and incubated with the antibody for 1 hour. An alkaline phosphatase conjugated antibody was used as the secondary. The image shows a section of whole preovulatory follicle. Staining for collagen type III is seen in the theca interna cell layer. No staining in the granulosa cells.

Immunohistochemistry (Frozen sections) - Anti-Collagen III antibody [FH-7A] (ab6310)

Staining of frozen rat skin sections with 1:8,000 ab6310 using biotin/ExtrAvidin®-Peroxidase.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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