**Product name**
Anti-Collagen III antibody [FH-7A] ab6310

**Description**
Mouse monoclonal [FH-7A] to Collagen III

**Host species**
Mouse

**Specificity**
ab6310 specifically recognizes collagen type III from human and rat origin. It does not recognize collagen types I, II, IV, V, VI and X.

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

**Species reactivity**
Reacts with: Rat, Human

**Immunogen**
Full length native protein (purified) (Human).

**Positive control**
IHC-P: Rat skin sections. IHC-Fr: Rat skin sections.

**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.

This product was changed from ascites to tissue culture supernatant on 17 May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

**Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
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<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.</td>
</tr>
</tbody>
</table>
Storage buffer: Preservative: 0.097% Sodium azide, Constituent: Whole serum

Purity: Tissue culture supernatant

Clonality: Monoclonal

Clone number: FH-7A

Isotype: IgG1

Applications

The Abpromise guarantee

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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-Fr</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐ (10)</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐ (1)</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ELISA</td>
<td>⭐⭐⭐⭐⭐ ⚫ (2)</td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Dot blot</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>Indirect ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 25136258</td>
</tr>
</tbody>
</table>

Target

Function

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. |

### Images

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen III antibody [FH-7A] (ab6310)**

Staining of formalin-fixed, paraffin-embedded rat skin with 1:4,000 ab6310 using biotin/ExtrAvidin®-Peroxidase.  
This image was generated using the ascites version of the product.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen III antibody [FH-7A] (ab6310)**

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 120°C 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.  
This image was generated using the ascites version of the product.
Staining of frozen rat skin sections with 1:8,000 ab6310 using biotin/ExtrAvidin®-Peroxidase.

This image was generated using the ascites version of the product.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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