

Product datasheet

Anti-Collagen X antibody [EPR22920-211] ab260040

Recombinant RabMAb

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Overview

Product name	Anti-Collagen X antibody [EPR22920-211]
Description	Rabbit monoclonal [EPR22920-211] to Collagen X
Host species	Rabbit
Tested applications	Suitable for: IHC-Fr, IHC-P Unsuitable for: WB
Species reactivity	Reacts with: Mouse
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Mouse articular cartilage tissue. IHC-Fr: Mouse trachea tissue.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22920-211
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab260040 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

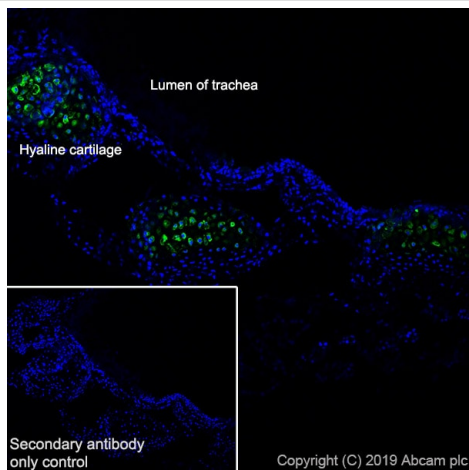
Application	Abreviews	Notes
IHC-Fr		1/100. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes Is unsuitable for WB.

Target

Function	Type X collagen is a product of hypertrophic chondrocytes and has been localized to presumptive mineralization zones of hyaline cartilage.
Involvement in disease	Defects in COL10A1 are the cause of Schmid type metaphyseal chondrodysplasia (SMCD) [MIM:156500]. SMCD is a dominantly inherited disorder of the osseous skeleton. The cardinal features of the phenotype are mild short stature, coxa vara and a waddling gait. Radiography usually shows sclerosis of the ribs, flaring of the metaphyses, and a wide irregular growth plate, especially of the knees. A variant form of SMCD is spondylometaphyseal dysplasia Japanese type. It is characterized by spinal involvement comprising mild platyspondyly, vertebral body abnormalities, and end-plate irregularity.
Sequence similarities	Contains 1 C1q domain.
Post-translational modifications	Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.
Cellular localization	Secreted > extracellular space > extracellular matrix.

Images

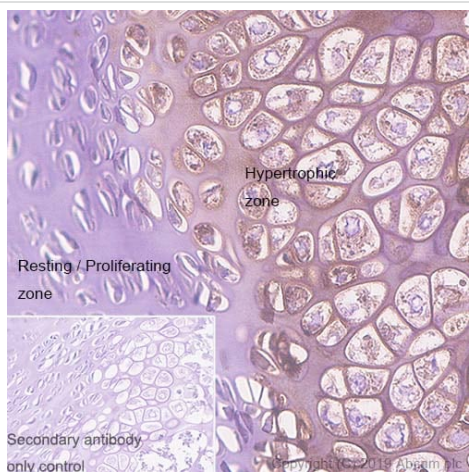


Immunohistochemistry (Frozen sections) - Anti-Collagen X antibody [EPR22920-211] (ab260040)

Immunohistochemical analysis of frozen section of 4% PFA-fixed, 0.2% Triton X-100 permeabilized mouse trachea tissue labeling Collagen X with ab260040 at 1/100 dilution followed by **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (green). Positive staining on hyaline cartilage of mouse trachea (PMID: 22859705). The nuclear counterstain is DAPI (blue).

Secondary antibody only control: **ab150077** AlexaFluor[®]488 Goat anti-Rabbit secondary antibody at 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Collagen X antibody [EPR22920-211] (ab260040)


Immunohistochemical analysis of paraffin-embedded mouse articular cartilage tissue labeling Collagen X with ab260040 at 1/1000 dilution (0.57µg/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP Polymer). Positive staining on the hypertrophic zone in the growth plate of mouse bone (PMID: 22859705). The section was incubated with ab260040 for 15 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.


Secondary antibody only control: A ready to use Goat Anti-Rabbit IgG H&L (HRP Polymer).


Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Why choose a recombinant antibody?

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Research with confidence
Consistent and reproducible results
- 

Long-term and scalable supply
Recombinant technology
- 

Success from the first experiment
Confirmed specificity
- 

Ethical standards compliant
Animal-free production

Anti-Collagen X antibody [EPR22920-211] (ab260040)

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

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