

Product datasheet

Anti-Collagen X antibody [EPR13044] ab182563

Recombinant RabMAb

10 References 3 Images

Overview

<b>Product name</b>	Anti-Collagen X antibody [EPR13044]
<b>Description</b>	Rabbit monoclonal [EPR13044] to Collagen X
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human Collagen X aa 550-650. The exact sequence is proprietary. Database link: <a href="#">Q03692</a>
<b>Positive control</b>	WB: Human fetal skin, placenta and cartilage tissue lysates; Rat skin and cartilage tissue lysates; Mouse cartilage tissue lysate
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own</p>

labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 59% PBS, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR13044
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab182563** 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
WB		1/1000 - 1/2000. Detects a band of approximately 66 kDa (predicted molecular weight: 66 kDa).

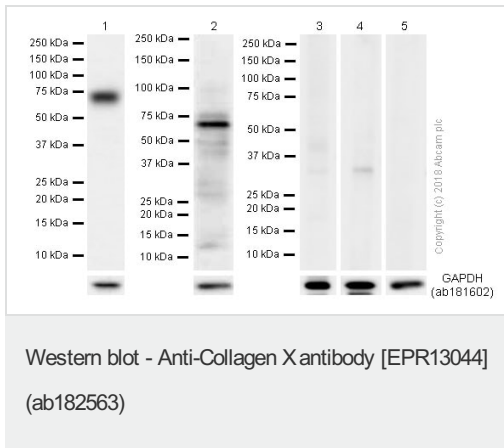
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## Target

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<b>Function</b>	Type X collagen is a product of hypertrophic chondrocytes and has been localized to presumptive mineralization zones of hyaline cartilage.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Contains 1 C1q domain.
<b>Post-translational modifications</b>	Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains.
<b>Cellular localization</b>	Secreted > extracellular space > extracellular matrix.

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**All lanes :** Anti-Collagen X antibody [EPR13044] (ab182563) at 1/1000 dilution

**Lane 1 :** Human fetal skin tissue lysates

**Lane 2 :** Rat skin tissue lysates

**Lane 3 :** Mouse cartilage tissue lysates

**Lane 4 :** Human cartilage tissue lysates

**Lane 5 :** Rat cartilage tissue lysates

Lysates/proteins at 15 µg per lane.

**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 66 kDa

**Observed band size:** 66 kDa

**Exposure time**

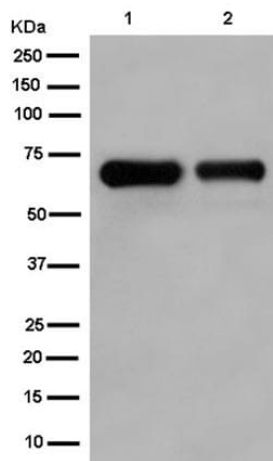
Lane 1: 6 seconds

Lane 2: 70 seconds

Lane 3 to 5: 10 seconds

Blocking/Diluting buffer and concentration 5% NFDm/TBST

Collagen X is normally not expressed in human healthy cartilage but its expression is detected at protein and mRNA level in human osteoarthritic cartilage according to PMID 22178514 and 26861791.



Western blot - Anti-Collagen X antibody [EPR13044] (ab182563)

**All lanes** : Anti-Collagen X antibody [EPR13044] (ab182563) at 1/1000 dilution

**Lane 1** : Human fetal skin lysate

**Lane 2** : Human placenta lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 66 kDa

**Additional bands at:** 66 kDa. We are unsure as to the identity of these extra bands.

#### Why choose a recombinant antibody?



**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 [EPR13044] (ab182563)

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

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- Replacement or refund for products not performing as stated on the datasheet
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- Response to your inquiry within 24 hours
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- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

## Terms and conditions

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- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors