

## Product datasheet

# Anti-MMP13 antibody [EPR21778] ab219620

Recombinant **RabMAb**

[4 Images](#)

### Overview

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<b>Product name</b>	Anti-MMP13 antibody [EPR21778]
<b>Description</b>	Rabbit monoclonal [EPR21778] to MMP13
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab219620 showed specific staining in cortical bone, but that no staining was observed in the breast cancer tissue tested.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment within Human MMP13 aa 100-300. The exact sequence is proprietary. Database link: <a href="#">P45452</a>
<b>Positive control</b>	IHC-P: Human tibia tissue; Mouse and rat femur tissues.
<b>General notes</b>	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> .  This product is a <a href="#">recombinant rabbit monoclonal antibody</a> .

### 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>	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR21778
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab219620** 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-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. For human. Use at 1/500 dilution for mouse and rat.

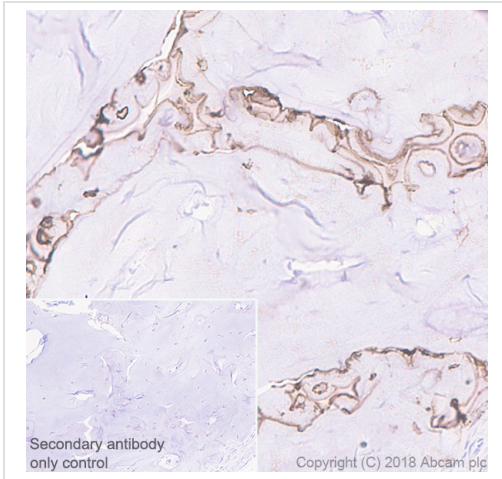
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## Target

<b>Function</b>	Degrades collagen type I. Does not act on gelatin or casein. Could have a role in tumoral process.
<b>Tissue specificity</b>	Seems to be specific to breast carcinomas.
<b>Involvement in disease</b>	<p>Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia Missouri type (SEMD-MO) [MIM:602111]. A bone disease characterized by moderate to severe metaphyseal changes, mild epiphyseal involvement, rhizomelic shortening of the lower limbs with bowing of the femora and/or tibiae, coxa vara, genu varum and pear-shaped vertebrae in childhood. Epimetaphyseal changes improve with age.</p> <p>Defects in MMP13 are the cause of metaphyseal anadysplasia type 1 (MANDP1) [MIM:602111]. Metaphyseal anadysplasia consists of an abnormal bone development characterized by severe skeletal changes that, in contrast with the progressive course of most other skeletal dysplasias, resolve spontaneously with age. Clinical characteristics are evident from the first months of life and include slight shortness of stature and a mild varus deformity of the legs. Patients attain a normal stature in adolescence and show improvement or complete resolution of varus deformity of the legs and rhizomelic micromelia.</p>
<b>Sequence similarities</b>	<p>Belongs to the peptidase M10A family.</p> <p>Contains 4 hemopexin-like domains.</p>
<b>Domain</b>	The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.
<b>Cellular localization</b>	Secreted > extracellular space > extracellular matrix.

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## Images



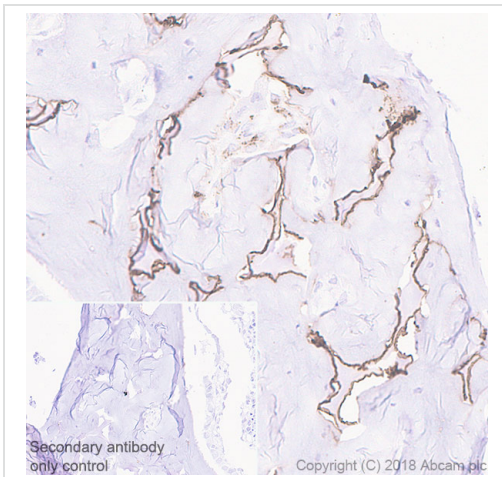
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP13 antibody [EPR21778] (ab219620)

Immunohistochemical analysis of paraffin-embedded rat femur tissue labeling MMP13 with ab219620 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on cortical bone of rat femur (PMID: 22549931) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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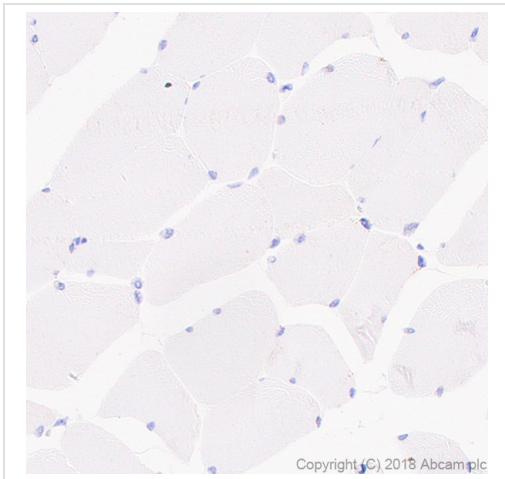
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP13 antibody [EPR21778] (ab219620)

Immunohistochemical analysis of paraffin-embedded mouse femur tissue labeling MMP13 with ab219620 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on cortical bone of mouse femur (PMID: 22549931) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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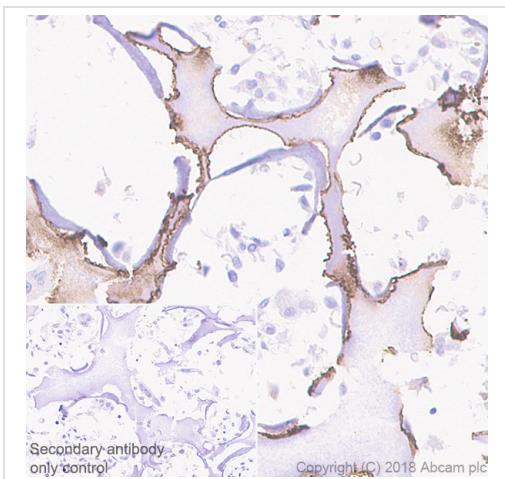
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP13 antibody [EPR21778] (ab219620)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling MMP13 with ab219620 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Counter stained with hematoxylin.

**Negative control:** No staining on human skeletal muscle (PMID: 9056642) is observed.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MMP13 antibody [EPR21778] (ab219620)

Immunohistochemical analysis of paraffin-embedded human tibia tissue labeling MMP13 with ab219620 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on cortical bone of human tibia (PMID: 22549931) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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

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