Product name: Anti-MMP13 antibody [EP1263Y] ab51072

Description: Rabbit monoclonal [EP1263Y] to MMP13

Host species: Rabbit

Tested applications:
- Suitable for: WB
- Unsuitable for: Flow Cyt, ICC/IF, IHC-Fr, IHC-P or IP

Species reactivity: Reacts with: Human

Immunogen: Synthetic peptide within Human MMP13 (C terminal). The exact sequence is proprietary.

Positive control: HeLa whole cell lysate (ab150035).

General notes:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form: Liquid

Storage instructions: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer:
- pH: 7.20
- Preservative: 0.01% Sodium azide
- Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EP1263Y
Isotype

IgG

Applications

The Abpromise guarantee

Our Abpromise guarantee covers the use of ab51072 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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<td>WB</td>
<td></td>
<td>1/1000. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa). <strong>For unpurified use at 1/500</strong></td>
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Application notes

Is unsuitable for Flow Cyt, ICC/IF, IHC-Fr, IHC-P or IP.

Target

Function

Degrades collagen type I. Does not act on gelatin or casein. Could have a role in tumoral process.

Tissue specificity

Seems to be specific to breast carcinomas.

Involvement in disease

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.

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.

Sequence similarities

Belongs to the peptidase M10A family.

Contains 4 hemopexin-like domains.

Domain

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.

Cellular localization

Secreted > extracellular space > extracellular matrix.

Images

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Anti-MMP13 antibody [EP1263Y] (ab51072) at 1/1000 dilution (Purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 54 kDa
Observed band size: 60 kDa

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

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