

## Product datasheet

# Anti-MMP13 antibody [181-15A12] ab77949

1 Image

### Overview

<b>Product name</b>	Anti-MMP13 antibody [181-15A12]
<b>Description</b>	Mouse monoclonal [181-15A12] to MMP13
<b>Specificity</b>	Reacts with precursor and active forms of human MMP13 and does not cross react with human MMP1, 2, 3, 7, 8, 9.
<b>Tested applications</b>	<b>Suitable for:</b> Sandwich ELISA, ELISA, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant human matrix metalloproteinase 13 (human MMP13)

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Store at -20°C. Stable for 12 months at -20°C
<b>Storage buffer</b>	Preservative: None Constituents: 4% Protease Free BSA, 0.1M PBS, pH 7.0
<b>Purity</b>	Protein G purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	181-15A12
<b>Isotype</b>	IgG1
<b>Light chain type</b>	kappa

### Applications

Our [Abpromise guarantee](#) covers the use of **ab77949** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

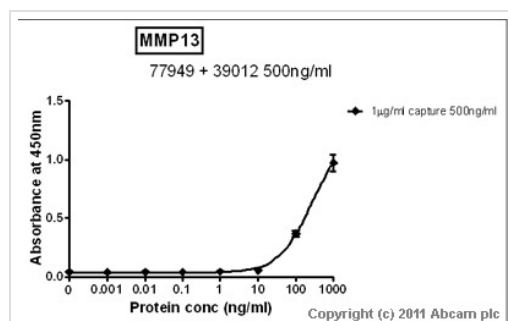
Application	Abreviews	Notes
Sandwich ELISA		Use a concentration of 1 µg/ml. Can be paired for Sandwich ELISA with <a href="#">Rabbit polyclonal to MMP13 (ab39012)</a> . For sandwich ELISA, use this antibody as Capture at 1µg/ml with <a href="#">ab39012</a> as Detection.
ELISA		Use at an assay dependent dilution.

Application	Abreviews	Notes
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 54 kDa.
IHC-P		Use at an assay dependent concentration.

## 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.

## Images



Standard curve for MMP13; dilution range 1µg/ml to 1µg/ml using Capture Antibody [Mouse monoclonal \[181-15A12\] to MMP13 \(ab77949\)](#) at 1µg/ml and Detector Antibody [Rabbit polyclonal to MMP13 - Hinge region \(ab39012\)](#) at 0.5µg/ml.

Sandwich ELISA - MMP13 antibody [181-15A12] (ab77949)

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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