

## Product datasheet

# Anti-MMP2 antibody ab83173

### 画像数 1

#### 製品の概要

製品名	Anti-MMP2 antibody
製品の詳細	Rabbit polyclonal to MMP2
由来種	Rabbit
アプリケーション	適用あり: WB
種交差性	交差種: Human 交差が予測される動物種: Rabbit, Cow, Dog 
免疫原	Synthetic peptide conjugated to KLH derived from within residues 500 - 600 of Human MMP2.Immunogen の所有権に関して(Peptide available as <a href="#">ab92853</a> .)
ポジティブ・コントロール	This antibody gave a positive signal in the following whole cell lysates: HT1080; MCF7; PC3; DU145.

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

#### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab83173** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
WB		

## 追加情報

WB: Use at a concentration of 1 µg/ml. Detects a band of approximately 67 kDa (predicted molecular weight: 73 kDa).

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

## ターゲット情報

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### 機能

Ubiquitous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-

-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro.

PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin. Ligand for integrin/beta3 on the surface of blood vessels.

### 組織特異性

Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.

### 関連疾患

Defects in MMP2 are the cause of Torg-Winchester syndrome (TWS) [MIM:259600]; also known as multicentric osteolysis nodulosis and arthropathy (MONA). TWS is an autosomal recessive osteolysis syndrome. It is severe with generalized osteolysis and osteopenia. Subcutaneous nodules are usually absent. Torg-Winchester syndrome has been associated with a number of additional features including coarse face, corneal opacities, patches of thickened, hyperpigmented skin, hypertrichosis and gum hypertrophy. However, these features are not always present and have occasionally been observed in other osteolysis syndromes.

### 配列類似性

Belongs to the peptidase M10A family.

Contains 3 fibronectin type-II domains.

Contains 4 hemopexin-like domains.

### ドメイン

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.

### 翻訳後修飾

Phosphorylation on multiple sites modulates enzymatic activity. Phosphorylated by PKC in vitro.

The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3). Autocatalytic cleavage in the C-terminal produces the anti-angiogenic peptide, PEX. This processing appears to be facilitated by binding integrin/beta3.

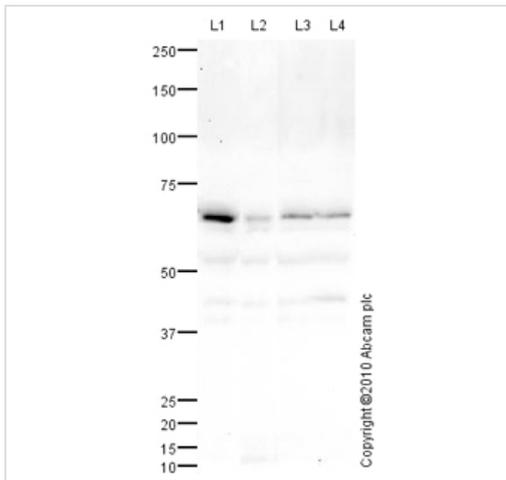
### 細胞内局在

Secreted > extracellular space > extracellular matrix. Membrane. Nucleus. Colocalizes with integrin alphaV/beta3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.

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## 画像

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Western blot - MMP2 antibody (ab83173)

**All lanes :** Anti-MMP2 antibody (ab83173) at 1 µg/ml

**Lane 1 :** HT 1080 (Human fibrosarcoma)

Whole Cell Lysate

**Lane 2 :** MCF7 (Human breast

adenocarcinoma cell line) Whole Cell Lysate

**Lane 3 :** PC3 whole cell lysate ([ab3954](#))

**Lane 4 :** DU 145 (Human prostate carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat polyclonal to Rabbit IgG -

H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 73 kDa

**Observed band size:** 67 kDa

**Additional bands at:** 44 kDa, 52 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 15 minutes

The band observed at 67 kDa could potentially be a cleaved form of Human 72 kDa type IV collagenase precursor (MMP2) as the target contains both a 29 amino acid signal peptide and a 80 amino acid propeptide. This would lower the expected molecular weight to 61 kDa. However MMP2 contains a number of potential glycosylation sites (SwissProt) which may explain the higher migrating band.

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

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