# abcam

### Product datasheet

## Anti-MMP2 antibody [4D3] ab2462

★★★★★ 3 Abreviews 31 References 画像数 1

製品の概要

製品名 Anti-MMP2 antibody [4D3]

製品の詳細 Mouse monoclonal [4D3] to MMP2

由来種 Mouse

特異性 Binds to human MMP-2 and pro-MMP2. The antibody was tested for cross-reactivity with MMP-1,

MMP-3, and MMP-9 and showed mild cross-reactivity with MMP-3.

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: Mouse, Rat 🔷

免疫原 Synthetic peptide corresponding to Human MMP2 aa 557-569 (internal sequence).

Sequence:

**TSLGLPPDVQRVD** 

Database link: P08253

Colon carcinoma. Placental tissue

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

Run BLAST with

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, along with publications, customer reviews and Q&As

製品の特件

ポジティブ・コントロール

特記事項

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 long

term. Avoid freeze / thaw cycle.

精製度 Tissue culture supernatant

**ポリ/モノ** モノクローナル

1

Run BLAST with

クローン名

アイソタイプ lgG1

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab2462の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

4D3

アプリケーション	Abreviews	特記事項
WB	<b>★★★★</b> <u>(1)</u>	Use at an assay dependent concentration.

#### ターゲット情報

機能

Ubiquitinous 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 Glv-

-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, posseses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin. Ligand for integrinv/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

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.

always present and have occasionally been observed in other osteolysis syndromes.

翻訳後修飾

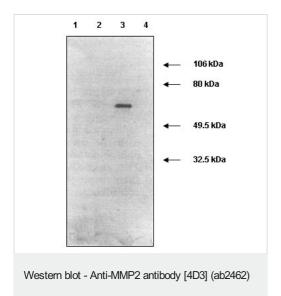
Phosphorylation on multiple sites modulates enzymatic activity. Phosphorylated by PKC in vitro. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3). Autocatalytic cleavage in the C-terminal produces the anti-angiogenic peptide, PEX. This processing appears to be facilitated by binding integriny/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



400 ng samples of recombinant human pro-enzyme (lane 1 = MMP-1; lane 2 = MMP-3; lane 3 = MMP-2; lane 4 = MMP-9) were subjected to SDS-PAGE, transferred to PVDF membrane, and detected by immunoblotting with ab2462 specific for MMP-2.

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