

Product datasheet

Anti-MMP2 antibody [VB3] ab80738

★★★★☆ 1 Abreviews 3 References 2 Images

Overview

Product name	Anti-MMP2 antibody [VB3]
Description	Mouse monoclonal [VB3] to MMP2
Host species	Mouse
Specificity	This antibody recognizes pro and active forms of MMP2.
Tested applications	Suitable for: WB, IP, ICC/IF Unsuitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Full length native MMP2 protein (purified) (Human)
Positive control	Conditioned, serum-free medium from (TPA-treated) HFL-1 cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None Constituents: 10mM PBS, pH 7.4
Purity	Protein G purified
Purification notes	Purified from ascites fluid by Protein G chromatography.
Clonality	Monoclonal
Clone number	VB3
Isotype	IgG1
Light chain type	kappa

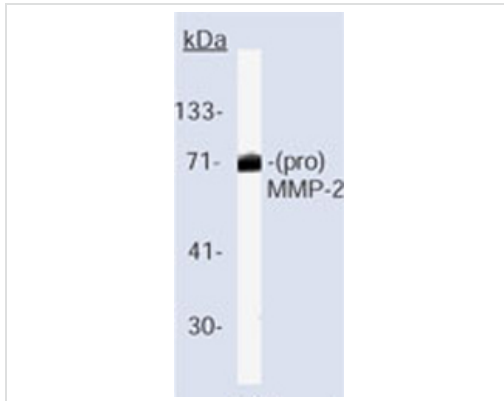
Applications

Our [Abpromise guarantee](#) covers the use of **ab80738** 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
WB	★★★★☆	Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 72 kDa (predicted molecular weight: 74 kDa).
IP		Use at 2 µg/mg of lysate.
ICC/IF		Use at an assay dependent dilution.
Application notes		Is unsuitable for IHC-P.
Target		
Function	<p>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 integrinα/beta3 on the surface of blood vessels.</p>	
Tissue specificity	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.	
Involvement in disease	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.	
Sequence similarities	<p>Belongs to the peptidase M10A family.</p> <p>Contains 3 fibronectin type-II domains.</p> <p>Contains 4 hemopexin-like domains.</p>	
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.	
Post-translational modifications	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 α /beta3.	
Cellular localization	Secreted > extracellular space > extracellular matrix. Membrane. Nucleus. Colocalizes with integrin α V/ β 3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.	

Images

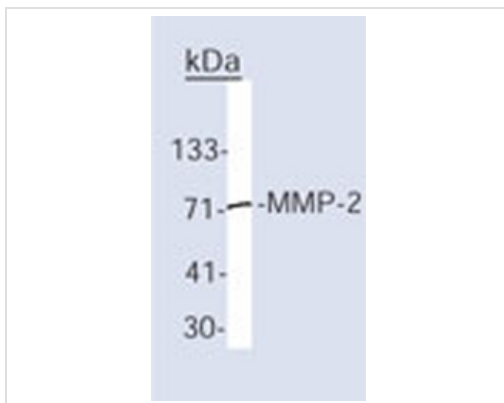


Western blot - MMP2 antibody [VB3] - BSA and Azide free (ab80738)

Anti-MMP2 antibody [VB3] (ab80738) at 2 µg/ml + human cells

Predicted band size: 74 kDa

Observed band size: 72 kDa



Immunoprecipitation - MMP2 antibody [VB3] - BSA and Azide free (ab80738)

Native IP using Human cells and ab80738 at 2 µg/mg lysate.

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