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Anti-MMP2 / Collagenase Type IV A Antibody
Mouse Monoclonal Antibody
Catalog # AH13399

Specification

Anti-MMP2 / Collagenase Type IV A Antibody - Product Information

Application	**WB, IF, FC**
Primary Accession	P08253
Other Accession	513617
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG1**
Calculated MW	**73882**

Anti-MMP2 / Collagenase Type IV A Antibody - Additional Information

Gene ID 4313

Other Names
72kD type IV collagenase; CLG4A; Collagenase Type 4 alpha; Collagenase type IV A; Gelatinase A; Gelatinase alpha; Gelatinase neutrophil; Matrix metalloproteinase-2; MMP2; MONA; Neutrophil gelatinase; PEX; TBE-1

Application Note
WB~~1:1000<br \>IF~~1:50~200<br \>FC~~1:10~50

Format
200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-MMP2 / Collagenase Type IV A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-MMP2 / Collagenase Type IV A Antibody - Protein Information

Name MMP2

Synonyms CLG4A

Function
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 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. Involved in the formation of the fibrovascular tissues in association with MMP14. [Isoform 2]: Mediates the proteolysis of CHUK/IKKA and initiates a primary innate immune response by inducing mitochondrial- nuclear stress signaling with activation of the pro-inflammatory NF-kappaB, NFAT and IRF transcriptional pathways.

Cellular Location
[Isoform 1]: Secreted, extracellular space, extracellular matrix. Membrane. Nucleus Note=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

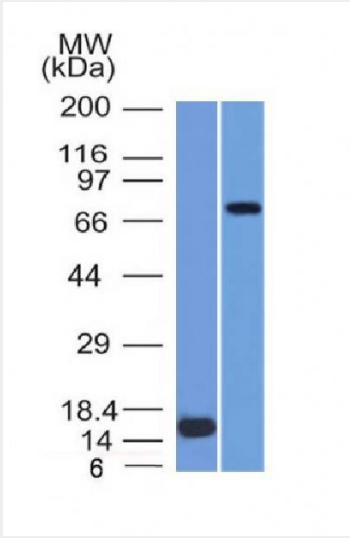
Tissue Location
Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate

Anti-MMP2 / Collagenase Type IV A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-MMP2 / Collagenase Type IV A Antibody - Images



Western Blot of (1) Recombinant MMP2 protein and (2) U87 Cell Lysate using MMP2 Monoclonal Antibody (MMP2/1501).

Anti-MMP2 / Collagenase Type IV A Antibody - Background

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It recognizes a protein of 72kDa, which is identified as MMP2. The matrix metalloproteinases (MMP) are a family of peptidase enzymes responsible for the degradation of extracellular matrix components, including collagen, gelatin, Fibronectin, Laminin and proteoglycan. Transcription of MMP genes is differentially activated by phorbol ester, lipopolysaccharide (LPS) or staphylococcal enterotoxin B (SEB). MMP catalysis requires both calcium and zinc. MMP-2 (also designated type IV collagenase) cleaves collagen types IV,V, VII and X and gelatin type I. Activation of MMP-2 secretion requires the Ras signaling pathway.