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Anti-MMP2 / Collagenase Type IV A Antibody

Mouse Monoclonal Antibody
Catalog # AH13399

Product Information

Application	WB, IF, FC
Primary Accession	P08253
Other Accession	513617
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1
Clone Names	MMP2/1501
Calculated MW	73882

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	Flow Cytometry (0.5-1ug/million cells); ,Immunofluorescence (0.5-1ug/ml); ,Western Blotting (0.5-1ug/ml) ,Optimal dilution for a specific application should be determined.
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.

Protein Information

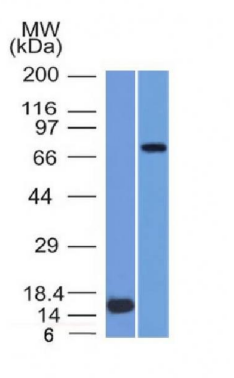
Name	MMP2
Synonyms	CLG4A
Function	Ubiquitinous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act 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

Background

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.

Images



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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.