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MMP12 Rabbit pAb

Catalog # AP96880

Product Information

Application	WB
Primary Accession	P34960
Other Accession	P34960
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54971
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse MMP12
Epitope Specificity	151-250/473
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the peptidase M10A family.Contains 4 hemopexin-like domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis, metastasis, and atherosclerosis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. MMP12 was first described in murine macrophages, later in human macrophages, and more recently in other cell types. Also known as metalloelastase, MMP12 is able to degrade elastin, entactin, laminin 1, fibronectin, type IV collagen as well as insulin B-chain and casein. MMP12 is often confused with the Serine proteinase, Leukocyte elastase (EC 3.4.21.37) because of similar nomenclature. MMP12 is structurally similar to the classical MMPs (MMP1, MMP3); it contains a propeptide with autoinhibitory cysteine switch site, a well-conserved zinc site, hinge region and hemopexin domain. MMP12 lacks a transmembrane domain and furin cleavage site. The zymogen for MMP-12 is about 54 kD, and is quickly activated to the 45 kD form; and this breaks down to cascade of active forms, ending with the common 22 kD form. Stimulated macrophages produce MMP12; it has also been found in osteosarcoma cells, synovial fibroblasts and lung fibroblasts.

Additional Information

Gene ID	17381
Other Names	HME; ME; MME; MMP-12; Mmel; MMP12_HUMAN; MMP12; Macrophage elastase (ME | hME); Matrix metalloproteinase-12 (MMP-12); 3.4.24.65;

	MMP12_MOUSE; MMP12_RAT; matrix metallopeptidase 12; matrix metalloproteinase 12 (macrophage elastase); macrophage elastase
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Mmp12
Synonyms	Mme, Mmel
Function	May be involved in tissue injury and remodeling. Has significant elastolytic activity. Can accept large and small amino acids at the P1' site, but has a preference for leucine. Aromatic or hydrophobic residues are preferred at the P1 site, with small hydrophobic residues (preferably alanine) occupying P3 (By similarity).
Cellular Location	Secreted, extracellular space, extracellular matrix

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