

Rabbit Anti-MMP-1/Cy5 Conjugated antibody

SL4597R-Cy5

Product Name	Anti-MMP-1/Cy5
Chinese Name	Cy5 标记的基质金属蛋白酶-1 抗体
Alias	MMP-1; MMP1; CLGN; CLG; collagenase, fibroblast; Fibroblast collagenase; Interstitial collagenase; Matrix metalloproteinase 1 (interstitial collagenase); Matrix metalloproteinase 1; Matrix metalloproteinase-1; Matrix Metalloproteinase 1; MMP1_HUMAN; OTTHUMP00000045866;MMP 1.
Research Area	Tumour Cardiovascular immunology Signal transduction Extracellular matrix
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat(predicted:Dog Cow Horse Rabbit Sheep) IF=1:50-200
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	27/41/54kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human MMP-1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Storage	
Product Detail	background: The matrix metalloproteinases (MMPs) are a family of at least eighteen secreted and membrane bound zincendopeptidases. Collectively, these enzymes can degrade all the components of the extracellular matrix, including fibrillar and non fibrillar collagens, fibronectin, laminin and basement membrane glycoproteins. In general, a signal peptide, a propeptide, and a

catalytic domain containing the highly conserved zinc binding site characterizes the structure of the MMPs. In addition, fibronectin like repeats, a hinge region, and a C terminal hemopexin like domain allow categorization of MMPs into the collagenase, gelatinase, stomelysin and membrane type MMP subfamilies. All MMPs are synthesized as proenzymes, and most of them are secreted from the cells as proenzymes. Thus, the activation of these proenzymes is a critical step that leads to extracellular matrix breakdown. MMPs are considered to play an important role in wound healing, apoptosis, bone elongation, embryo development, uterine involution, angiogenesis and tissue remodeling, and in diseases such as multiple sclerosis, Alzheimer's, malignant gliomas, lupus, arthritis, periodontis, glumerulonephritis, atherosclerosis, tissue ulceration, and in cancer cell invasion and metastasis.

Function:

Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of types VII and X. In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity.

Subunit:

Interacts with HIV-1 Tat.

Subcellular Location:

Secreted, extracellular space, extracellular matrix (Probable).

Similarity:

Belongs to the peptidase M10A family.
Contains 4 hemopexin-like domains.

Database links:

[Entrez Gene: 4312](#) Human

[Entrez Gene: 17386](#) Mouse

[Entrez Gene: 397320](#) Pig

[Entrez Gene: 100009110](#) Rabbit

[Omim: 120353](#) Human

[SwissProt: P28053](#) Cow

[SwissProt: P03956](#) Human

[SwissProt: P33435](#) Mouse

[SwissProt: P21692](#) Pig

[SwissProt: P13943](#) Rabbit

[Unigene: 83169](#) Human

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

基质金属蛋白酶(matrix metalloproteinases, MMPs)是一族依赖锌离子而降解各种 Extracellular matrix 的蛋白酶,亦称 IV 型胶原酶或称明胶酶 A,其主要功能为降解 IV 型胶原,因而它在 Tumour 细胞突破基底膜屏障和浸润转移中起重要作用。目前主要用于各种恶性 Tumour(如乳腺癌、胃肠道癌、卵巢癌、膀胱癌等)中的基底膜检测与 Tumour 转移浸润的研究。