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[Marker Primary Antibody]

Rabbit Anti-MMP-1/AF647 Conjugated antibody

Catalog Number: SL4597R-AF647

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-MMP-1/AF647
Immunogen:	KLH conjugated synthetic peptide derived from human MMP-1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	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.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Cow,Horse,Rabbit,Sheep)
Background:	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

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	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. Matrix metalloproteinase(matrix metalloproteinases, MMPs)It is a family of proteases that depend on zinc ions to degrade various Extracellular matrix components, also known as type IV collagenase or gelatinase A. Its main function is to degrade type IV collagen, so it plays an important role in Tumour cells breaking through the basement membrane barrier and in invasion and metastasis. At present, it is mainly used in basement membrane detection and research on Tumour metastasis and invasion in various malignant Tumours (such as breast cancer, gastrointestinal cancer, ovarian cancer, bladder cancer, etc.).