bs-0414R

- ## Rabbit Anti-MMP-14 Polyclonal Antibody

Primary Antibodies

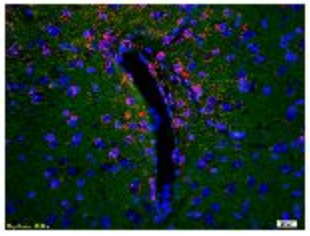
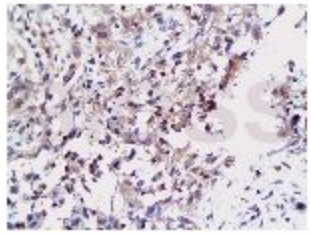
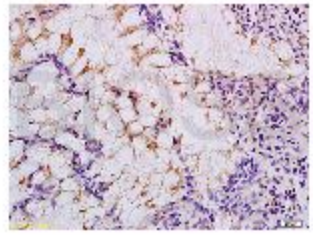
Background:
The matrix metalloproteinases (MMPs) are a family of at least eighteen secreted and membrane bound zincendopeptidases. Collectively, these enzymes can degrade all the components of the extracellular matrix, including fibrillar and non fibrillar collagens, fibronectin, laminin and basement 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.
MMP14 may be an activator of pro gelatinase A and is expressed in fibroblast cells during both wound healing and human cancer progression. MMP14 is expressed in very low levels and may require stimulation with concanavolin A or the phorbol ester TPA to stimulate production of MMP14.
Matrix metalloproteinase-14 precursor is endopeptidase that degrades various components of the extracellular matrix, such as collagen. Activates progelatinase A. Essential for pericellular collagenolysis and modeling of skeletal and extraskeletal connective tissues during development. [Catalytic activity] Endopeptidase activity. Activates progelatinase A by cleavage of the propeptide at 37-Asn-|-Leu-38. Other bonds hydrolyzed include 35-Gly-|-Ile-36 in the propeptide of collagenase 3, and 341-Asn-|-Phe-342, 441-Asp-|-Leu-442 and 354-Gln-|-Thr-355 in the aggrecan interglobular domain. Highly expressed in placenta, kidney, heart, lung, embryonic skeletal and periskeletal tissues. Belongs to the peptidase M10A family.

Source/Purification:
KLH conjugated synthetic peptide derived from human MMP14. Was purified by Protein A and peptide affinity chromatography.

Storage: Prepared as lyophilized powder or liquid and shipped on ice. Store at -20℃ for one year.

Reconstitution:
If the antibody is in liquid form, no reconstitution needed.

Reconstitution is only required for the lyophilized antibody. Please refer to the reconstitution instruction card in the package.

Size: 100ul or 100ug lyophilized

Concentration: 1ug/uL

Host: Rabbit

Reactivities:
Human,Mouse,Rat,Pig,Sheep,

Application:

- WB(1:100-500)
- ELISA(1:500-1000)
- IP(1:20-100)
- IHC-P(1:100-500)
- IHC-F(1:100-500)
- FACS(1:100-500)
- IF(1:100-500)
- Not yet tested in other applications. Optimal working dilutions must be determined by the end user.

Antibody Type: Polyclonal

Isotype: IgG

Molecular Weight: 52/62kDa

Preservatives:
10ug/uL BSA and 0.1% NaN3.

For research use only. CAUTION: Not for human or animal therapeutic or diagnostic use.