bsm-52292R **[Primary Antibody]**

MMP12 Recombinant Rabbit mAb

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DATASHEET

Host: Rabbit
Isotype: IgG
Clonality: Recombinant
CloneNo.: 1A4
GeneID: 4321
SWISS: P39900
Target: MMP12
Immunogen: A synthesized peptide derived from human MMP12: 405-470.
Purification: affinity purified by Protein A
Concentration: 1mg/ml
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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.

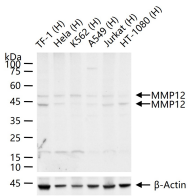
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human

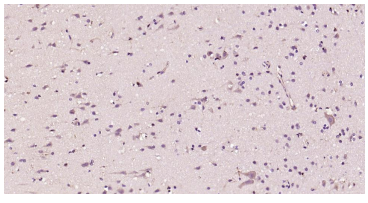
Predicted MW.: 42 kDa

Subcellular Location: Secreted ,Extracellular matrix

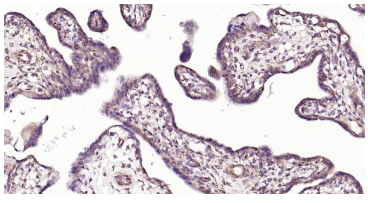
VALIDATION IMAGES



25 ug total protein per lane of various lysates (see on figure) probed with MMP12 monoclonal antibody, unconjugated (bsm-52292R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Human Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated(bsm-52292R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Placenta; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MMP12 Monoclonal Antibody, Unconjugated(bsm-52292R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.