bs-4597R **[Primary Antibody]**

MMP-1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 4312 **SWISS:** P03956

Target: MMP-1

Immunogen: KLH conjugated synthetic peptide derived from human MMP-1: 251-350/469.

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: 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.

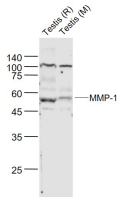
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Sheep, Cow, Dog, Horse)

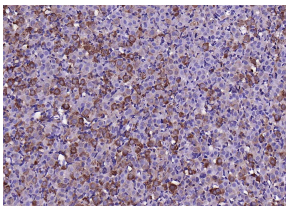
Predicted MW.: 27/41/54 kDa

Subcellular Location: Extracellular matrix

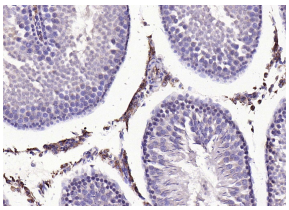
VALIDATION IMAGES



Sample: Lane 1: Testis (Rat) Lysate at 40 ug Lane 2: Testis (Mouse) Lysate at 40 ug Primary: Anti-MMP-1 (bs-4597R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 54 kD Observed band size: 54 kD



Paraformaldehyde-fixed, paraffin embedded (rat ovary); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MMP-1) Polyclonal Antibody, Unconjugated (bs-4597R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MMP-1) Polyclonal Antibody, Unconjugated (bs-4597R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=6.51]** Woan-Ruoh Lee. et al. Laser-assisted nanoparticle delivery to promote skin absorption and penetration depth of retinoic acid with the aim for treating photoaging. INT J PHARMACEUT. 2022 Nov;627:122162 WB ;Human. 36122617
- **[IF=5.606]** Luo Ping. et al. IL-37 inhibits M1-like macrophage activation to ameliorate temporomandibular joint inflammation through the NLRP3 pathway. Rheumatology. 2020 Oct;59(10):3070-3080 WB ;Human. 32417913
- **[IF=5.17]** Ou et al. Tumor microenvironment B cells increase bladder cancer metastasis via modulation of the IL-8/androgen receptor (AR)/MMPs signals. (2015) Oncotarge. 6:26065-78 WB ;Human. 26305549
- **[IF=5.4]** Daijing Long. et al. TET2 promotes UVB-induced cell death by activating RIPK3-MLKL-necroptosis signaling. CHEM-BIOL INTERACT. 2025 May;:111550 IHC ;Mouse. 40350054
- **[IF=5.039]** Luo P et al. IL‐37b alleviates inflammation in the temporomandibular joint cartilage via IL‐1R8 pathway. Cell Prolif. 2019 Sep 27:e12692. WB,IHC ;Human&Rat. 31560411