

# MMP-8 (M-20): sc-8848

## BACKGROUND

The matrix metalloproteinases (MMP) are a family of peptidase enzymes responsible for the degradation of extracellular matrix components, including collagen, gelatin, fibronectin, laminin and proteoglycan. Transcription of MMP genes is differentially activated by phorbol ester, lipopolysaccharide (LPS) or staphylococcal enterotoxin B (SEB). MMP catalysis requires both calcium and zinc. MMP-8 (also designated neutrophil collagenase, PMNL collagenase or collagenase-2) degrades fibrillar collagen types I, II and III. Unlike other members of the MMP family, MMP-8 is expressed exclusively in inflammatory conditions. MMP-8 is highly expressed in the postpartum uterus, and it is thought to be involved in the postpartum involution of the uterus. MMP-8 is also the predominant collagenase expressed in ulcers and healing wounds.

## REFERENCES

- Hasty, K.A., et al. 1990. Human neutrophil collagenase. A distinct gene product with homology to other matrix metalloproteinases. *J. Biol. Chem.* 265: 11421-11424.
- Birkedal-Hansen, H., et al. 1993. Matrix metalloproteinases: a review. *Crit. Rev. Oral Biol. Med.* 4: 197-250.

## CHROMOSOMAL LOCATION

Genetic locus: MMP8 (human) mapping to 11q22.3; Mmp8 (mouse) mapping to 9 A1.

## SOURCE

MMP-8 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MMP-8 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8848 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MMP-8 (M-20) is recommended for detection of MMP-8 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MMP-8 siRNA (h): sc-35949, MMP-8 siRNA (m): sc-35950, MMP-8 shRNA Plasmid (h): sc-35949-SH, MMP-8 shRNA Plasmid (m): sc-35950-SH, MMP-8 shRNA (h) Lentiviral Particles: sc-35949-V and MMP-8 shRNA (m) Lentiviral Particles: sc-35950-V.

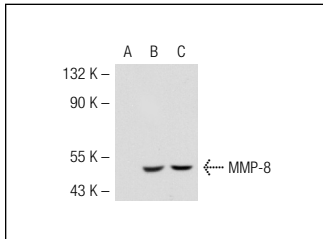
Molecular Weight of MMP-8: 65/50 kDa.

Positive Controls: MMP-8 (m): 293T Lysate: sc-121696, SJRH30 cell lysate: sc-2287 or mouse kidney extract: sc-2255.

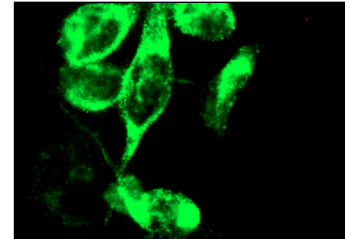
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



MMP-8 (M-20): sc-8848. Western blot analysis of MMP-8 expression in non-transfected 293T: sc-117752 (A), mouse MMP-8 transfected 293T: sc-121696 (B) and SJRH30 (C) whole cell lysates.



MMP-8 (M-20): sc-8848. Immunofluorescence staining of methanol-fixed SJRH30 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Hui, W., et al. 2003. Oncostatin M in combination with tumor necrosis factor  $\alpha$  induces cartilage damage and matrix metalloproteinase expression *in vitro* and *in vivo*. *Arthritis Rheum.* 48: 3404-3418.
- Kleemann, R., et al. 2004. Evidence for anti-inflammatory activity of statins and PPAR $\alpha$  activators in human C-reactive protein transgenic mice *in vivo* and in cultured human hepatocytes *in vitro*. *Blood* 103: 4188-4194.
- Khanna-Gupta, A., et al. 2007. Growth factor independence-1 (Gfi-1) plays a role in mediating specific granule deficiency (SGD) in a patient lacking a gene-inactivating mutation in the C/EBP $\epsilon$  gene. *Blood* 109: 4181-4190.
- Khan, O.F., et al. 2010. MMP levels in the response to degradable implants in the presence of a hydroxamate-based matrix metalloproteinase sequestering biomaterial *in vivo*. *J. Biomed. Mater. Res. A* 93: 1368-1379.
- Suryawanshi, A., et al. 2011. Ocular neovascularization caused by herpes simplex virus type 1 infection results from breakdown of binding between vascular endothelial growth factor A and its soluble receptor. *J. Immunol.* 186: 3653-3665.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MMP-8 (B-1): sc-514803** or **MMP-8 (MM0023-7A11): sc-101450**, our highly recommended monoclonal alternatives to MMP-8 (M-20).