SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-8 (MM0023-7A11): sc-101450

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. 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.
2. Birkedal-Hansen, H., et al. 1993. Matrix metalloproteinases: a review. Crit. Rev. Oral Biol. Med. 4: 197-250.
3. Reinemer, P., et al. 1994. Structural implications for the role of the N-terminus in the "superactivation" of collagenases. A crystallographic study. FEBS Lett. 338: 227-233.
4. Machein, U., et al. 1997. Expression of several matrix metalloproteinase genes in human monocytic cells. Adv. Exp. Med. Biol. 421: 247-251.
5. Balbin, M., et al. 1998. Collagenase 2 (MMP-8) expression in murine tissue-remodeling processes. Analysis of its potential role in postpartum involution of the uterus. J. Biol. Chem. 273: 23959-23968.
6. Nwomeh, B.C., et al. 1999. MMP-8 is the predominant collagenase in healing wounds and nonhealing ulcers. J. Surg. Res. 81: 189-195.

CHROMOSOMAL LOCATION

Genetic locus: MMP8 (human) mapping to 11q22.2.

SOURCE

MMP-8 (MM0023-7A11) is a mouse monoclonal antibody raised against recombinant MMP-8 of human origin.

PRODUCT

Each vial contains 100 µg IgG_2 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

MMP-8 (MM0023-7A11) is recommended for detection of MMP-8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of latent MMP-8: 65 kDa.

Molecular Weight of active MMP-8: 50 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287.

SELECT PRODUCT CITATIONS

1. Rai, V., et al. 2016. Vitamin D attenuates inflammation, fatty infiltration, and cartilage loss in the knee of hyperlipidemic microswine. Arthritis Res. Ther. 18: 203.

RESEARCH USE

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

See **MMP-1/8 (A-7): sc-137044** for MMP-1/8 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.