SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-9 (C-20): sc-6840

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-9 (also designated 92 kDa type IV collagenase or gelatinase B) has been shown to degrade bone collagens in concert with MMP-1 (also designated interstitial collagenase, fibroblast collagenase or collagenase-1), and cysteine proteases and may play a role in bone osteoclastic resorption. MMP-1 is down-regulated by p53, and abnormality of p53 expression may contribute to joint degradation in rheumatoid arthritis by regulating MMP-1 expression.

CHROMOSOMAL LOCATION

Genetic locus: MMP9 (human) mapping to 20q13.12; Mmp9 (mouse) mapping to 2 H3.

SOURCE

MMP-9 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MMP-9 of human 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-6840 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MMP-9 (C-20) is recommended for detection of MMP-9 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MMP-9 (C-20) is also recommended for detection of MMP-9 in additional species, including canine.

Suitable for use as control antibody for MMP-9 siRNA (h): sc-29400, MMP-9 siRNA (m): sc-29401, MMP-9 shRNA Plasmid (h): sc-29400-SH, MMP-9 shRNA Plasmid (m): sc-29401-SH, MMP-9 shRNA (h) Lentiviral Particles: sc-29400-V and MMP-9 shRNA (m) Lentiviral Particles: sc-29401-V.

Molecular Weight of MMP-9: 92 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

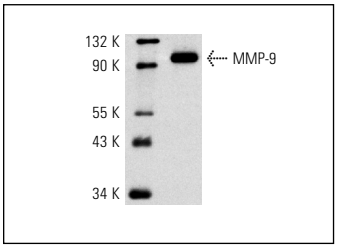
RESEARCH USE

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

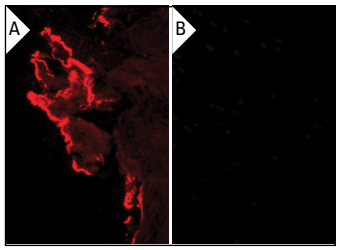
STORAGE

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

DATA



MMP-9 (C-20): sc-6840. Western blot analysis of human recombinant MMP-9.



MMP-9 (C-20): sc-6840. Immunofluorescence staining of formalin-fixed, paraffin-embedded canine digital flexor tendon, failed repair injury (**A**) and uninjured (**B**). Note staining in areas of active remodeling and scar formation. Kindly provided by Dr. Timothy Ritty from Washington University School of Medicine.

SELECT PRODUCT CITATIONS

1. Hauck, C.R., et al. 2001. Inhibition of focal adhesion kinase expression or activity disrupts epidermal growth factor-stimulated signaling promotion the migration of invasive human carcinoma cells. Cancer Res. 61: 7079-7090.
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3. Cheng, C.C., et al. 2011. Bronchiolitis obliterans organizing pneumonia in Swine associated with porcine circovirus type 2 infection. J. Biomed. Biotechnol. 2011: 245728.
4. 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.
5. Vidya Priyadarsini, R., et al. 2012. Aberrant activation of Wnt/β-catenin signaling pathway contributes to the sequential progression of DMBA-induced HBP carcinomas. Oral Oncol. 48: 33-39.
6. Toledo, A.C., et al. 2012. Aerobic exercise attenuates pulmonary injury induced by exposure to cigarette smoke. Eur. Respir. J. 39: 254-264.
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9. Wan, X.B., et al. 2012. Molecular prognostic prediction for locally advanced nasopharyngeal carcinoma by support vector machine integrated approach. PLoS ONE 7: e31989.