

MMP-9 (M-17): sc-6841

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 downregulated 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 (M-17) is available as either goat (sc-6841) or rabbit (sc-6841-R) affinity purified polyclonal antibody raised against a peptide mapping C-terminus of MMP-9 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-6841 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MMP-9 (M-17) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: AMJ2-CB whole cell lysate or human PBL whole cell lysate.

RESEARCH USE

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

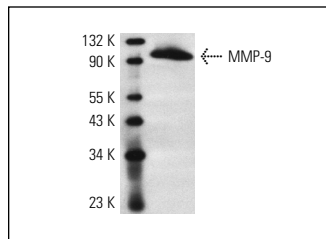
PROTOCOLS

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

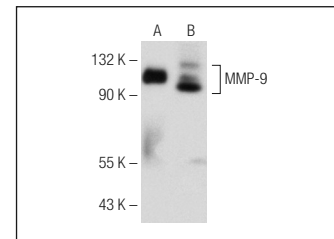
STORAGE

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

DATA



MMP-9 (M-17): sc-6841. Western blot analysis of human recombinant MMP-9.



MMP-9 (M-17)-R: sc-6841-R. Western blot analysis of MMP-9 expression in human PBL (A) and AMJ2-C8 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Richards, P.J., et al. 2001. Suppression of chronic streptococcal cell wall-induced arthritis in Lewis rats by liposomal clodronate. *Rheumatology* 40: 978-987.
- Qin, Y.W., et al. 2010. Simvastatin inhibited cardiac hypertrophy and fibrosis in apolipoprotein E-deficient mice fed a "Western-style diet" by increasing PPAR α and γ expression and reducing TC, MMP-9, and Cat S levels. *Acta Pharmacol. Sin.* 31: 1350-1358.
- Zhou, J., et al. 2010. Neutrophils compromise retinal pigment epithelial barrier integrity. *J. Biomed. Biotechnol.* 2010: 289360.
- Fu, T.Y., et al. 2011. Let-7b-mediated suppression of basigin expression and metastasis in mouse melanoma cells. *Exp. Cell Res.* 317: 445-451.
- Wang, H., et al. 2011. Effects of magnetic induction hyperthermia and radiotherapy alone or combined on a murine 4T1 metastatic breast cancer model. *Int. J. Hyperthermia* 27: 563-572.
- Mishra, A., et al. 2011. Downregulation of matrix metalloproteinase-9 by melatonin during prevention of alcohol-induced liver injury in mice. *Biochimie* 93: 854-866.
- Tarrats, N., et al. 2011. Critical role of tumor necrosis factor receptor 1, but not 2, in hepatic stellate cell proliferation, extracellular matrix remodeling, and liver fibrogenesis. *Hepatology* 54: 319-327.
- Ugarte-Berzal, E., et al. 2012. A 17-residue sequence from the matrix metalloproteinase-9 (MMP-9) hemopexin domain binds $\alpha 4\beta 1$ Integrin and Inhibits MMP-9-induced functions in chronic lymphocytic leukemia B cells. *J. Biol. Chem.* 287: 27601-27613.

MONOS
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Try **MMP-9 (E-11): sc-393859** or **MMP-9 (7-11C): sc-13520**, our highly recommended monoclonal alternatives to MMP-9 (M-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **MMP-9 (E-11): sc-393859**.