

MMP-9 (7-11C): sc-13520



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 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 (7-11C) is a mouse monoclonal antibody raised against partially purified human MMP-9.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking processing of pro-MMP-9, sc-13520 L, 200 µg/0.1 ml.

MMP-9 (7-11C) is available conjugated to agarose (sc-13520 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13520 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13520 PE), fluorescein (sc-13520 FITC), Alexa Fluor® 488 (sc-13520 AF488), Alexa Fluor® 546 (sc-13520 AF546), Alexa Fluor® 594 (sc-13520 AF594) or Alexa Fluor® 647 (sc-13520 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13520 AF680) or Alexa Fluor® 790 (sc-13520 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, MMP-9 (7-11C) is available conjugated to biotin (sc-13520 B), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

MMP-9 (7-11C) 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).

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.

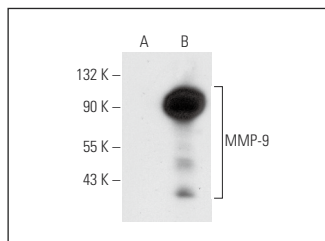
Molecular Weight of MMP-9: 92 kDa.

Positive Controls: MMP-9 (h2): 293T Lysate: sc-176046.

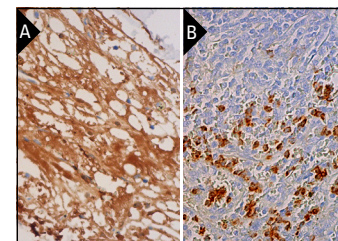
STORAGE

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

DATA



MMP-9 (7-11C): sc-13520. Western blot analysis of MMP-9 expression in non-transfected: sc-117752 (A) and human MMP-9 transfected: sc-176046 (B) 293T whole cell lysates.



MMP-9 (7-11C): sc-13520. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing cytoplasmic and nuclear staining of Hematopoietic cells and extracellular staining of Reticular tissue (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of subset of cells in red pulp (B).

SELECT PRODUCT CITATIONS

- Sakata, K., et al. 2000. Expression of matrix metalloproteinases (MMP-2, MMP-9, MT1-MMP) and their inhibitors (TIMP-1, TIMP-2) in common epithelial tumors of the ovary. *Int. J. Oncol.* 17: 673-681.
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- Wei, R., et al. 2018. The SOX2OT/miR-194-5p axis regulates cell proliferation and mobility of gastric cancer through suppressing epithelial-mesenchymal transition. *Oncol. Lett.* 16: 6361-6368.
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- Wang, J., et al. 2020. Natural triterpenoid saponin Momordin Ic suppresses Hep G2 cell invasion via COX-2 inhibition and PPAR γ activation. *Toxicol. In Vitro* 65: 104784.
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RESEARCH USE

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

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