MMP-9 (E-11): sc-393859

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 collagen 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 (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 678-707 at the C-terminus of MMP-9 of human origin.

PRODUCT

Each vial contains 200 µg IgG2b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MMP-9 (E-11) is available conjugated to agarose (sc-393859 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393859 HRP), 200 µg/ml, for WB, IHCIP and ELISA; to either phycocerythrin (sc-393859 PE), fluorescein (sc-393859 FITC), Alexa Fluor® 488 (sc-393859 AF488), Alexa Fluor® 546 (sc-393859 AF546), Alexa Fluor® 594 (sc-393859 AF594) or Alexa Fluor® 647 (sc-393859 AF647), 200 µg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-393859 AF680) or Alexa Fluor® 790 (sc-393859 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393859P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MMP-9 (E-11) is recommended for detection of MMP-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).


Molecular Weight of MMP-9: 92 kDa.

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 (E-11) HRP: sc-393859 HRP. Direct western blot analysis of MMP-9 expression in non-transfected vs. transfected: sc-176046 (A) and human MMP-9 transfected: sc-176046 (B) 293T whole cell lysates and human lung tissue extract (C).

MMP-9 (E-11): sc-393859. Immunoperoxidase staining of formalin fixed, paraffin embedded human spleen tissue showing cytoplasmic staining of subset of cells in red pulp.

SELECT PRODUCT CITATIONS


RESEARCH USE

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

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