SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-2 (C-19): sc-6838

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-2 (also designated type IV collagenase) cleaves collagen types IV, V, VII and X and gelatin type I. Activation of MMP-2 secretion requires the Ras signaling pathway.

CHROMOSOMAL LOCATION

Genetic locus: MMP2 (human) mapping to 16q12.2; Mmp2 (mouse) mapping to 8 C5.

SOURCE

MMP-2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MMP-2 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-6838 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MMP-2 (C-19) is recommended for detection of MMP-2 of mouse, rat and 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MMP-2 (C-19) is also recommended for detection of MMP-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MMP-2 siRNA (h): sc-29398, MMP-2 siRNA (m): sc-37264, MMP-2 shRNA Plasmid (h): sc-29398-SH, MMP-2 shRNA Plasmid (m): sc-37264-SH, MMP-2 shRNA (h) Lentiviral Particles: sc-29398-V and MMP-2 shRNA (m) Lentiviral Particles: sc-37264-V.

Molecular Weight of pro-MMP-2: 72 kDa.

Molecular Weight of cleaved MMP-2: 63 kDa.

Positive Controls: ECV304 cell lysate: sc-2269 or A-375 cell lysate: sc-3811.

STORAGE

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

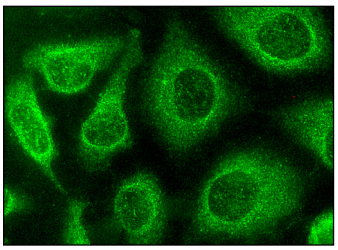
PROTOCOLS

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

RESEARCH USE

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

DATA



MMP-2 (C-19): sc-6838. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Hauck, C.R., et al. 2001. Inhibition of focal adhesion kinase expression or activity disrupts epidermal growth factor-stimulated signaling promoting the migration of invasive human carcinoma cells. Cancer Res. 61: 7079-7090.
2. Bruemmer, D., et al. 2001. Expression of CD40 in vascular smooth muscle cells and macrophages is associated with early development of human atherosclerotic lesions. Am. J. Cardiol. 87: 21-27.
3. Carmeli, E., et al. 2009. Tetracycline therapy for muscle atrophy due to immobilization. J. Musculoskelet. Neuronal Interact. 9: 81-88.
4. Prasad, S., et al. 2010. Garcinol potentiates TRAIL-induced apoptosis through modulation of death receptors and antiapoptotic proteins. Mol. Cancer Ther. 9: 856-868.
5. Khan, O.F., et al. 2010. MMP levels in the response to degradable implants in the presence of a hydroxamate-based matrix metalloproteinase sequestering biomaterial *in vivo*. J. Biomed. Mater. Res. A 93: 1368-1379.
6. de Oliveira Demarchi, A.C., et al. 2010. Development of secondary palate requires strict regulation of ECM remodeling: sequential distribution of RECK, MMP-2, MMP-3, and MMP-9. Cell Tissue Res. 340: 61-69.
7. de Groot, J.F., et al. 2010. Tumor invasion after treatment of glioblastoma with bevacizumab: radiographic and pathologic correlation in humans and mice. Neuro oncol. 12: 233-242.
8. Carmeli, E., et al. 2010. Increased iNOS, MMP-2, and HSP-72 in skeletal muscle following high-intensity exercise training. J. Basic Clin. Physiol. Pharmacol. 21: 127-146.
9. Justulin, L.A., et al. 2010. Matrix metalloproteinase (MMP)-2 and MMP-9 activity and localization during ventral prostate atrophy and regrowth. Int. J. Androl. 33: 696-708.
10. Molina, F.D., et al. 2011. Microscopical evaluation of extracellular matrix and its relation to the palatopharyngeal muscle in obstructive sleep apnea. Microsc. Res. Tech. 74: 430-439.