# MMP-3 (m): 293T Lysate: sc-121695



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-3, MMP-10 and MMP-11 (also designated stromelysin-1, -2 and -3 respectively) activate procollagenase. MMP-3 activation of procollagenase can occur via two pathways; direct activation by MMP-3 is slow and activation by MMP-3, in conjunction with tissue or plasma proteinases, is rapid. MMP-10 is expressed in small intestine, and at lower levels in lung and heart. MMP-11 is specifically expressed in stromal cells of breast carcinomas and contributes to epithelial cell malignancies.

# **REFERENCES**

- Saus, J., Quinones, S., Otani, Y., Nagase, H., Harris, E.D., Jr. and Kurkinen, M. 1988. The complete primary structure of human matrix metalloproteinase-3. Identity with stromelysin. J. Biol. Chem. 263: 6742-6745.
- 2. Suzuki, K., Enghild, J.J., Morodomi, T., Salvesen, G. and Nagase, H. 1990. Mechanisms of activation of tissue procollagenase by matrix metalloproteinase 3 (stromelysin). Biochemistry 29: 10261-10270.
- 3. Basset, P., Bellocq, J.P., Wolf, C., Stoll, I., Hutin, P., Limacher, J.M., Podhajcer, O.L., Chenard, M.P., Rio, M.C. and Chambon, P. 1990. A novel metalloproteinase gene specifically expressed in stromal cells of breast carcinomas. Nature 348: 699-704.
- Birkedal-Hansen, H., Moore, W.G., Bodden, M.K., Windsor, L.J., Birkedal-Hansen, B., DeCarlo, A. and Engler, J.A. 1993. Matrix metalloproteinases: a review. Crit. Rev. Oral Biol. Med. 4: 197-250.
- Reinemer, P., Grams, F., Huber, R., Kleine, T., Schnierer, S., Piper, M., Tschesche, H. and Bode, W. 1994. Structural implications for the role of the N terminus in the "superactivation" of collagenases. A crystallographic study. FEBS Lett. 338: 227-233.
- 6. Knauper, V., Murphy, G. and Tschesche, H. 1996. Activation of human neutrophil procollagenase by stromelysin 2. Eur. J. Biochem. 235: 187-191.
- Machein, U. and Conca, W. 1997. Expression of several matrix metalloproteinase genes in human monocytic cells. Adv. Exp. Med. Biol. 421: 247-251.
- 8. Madlener, M. and Werner, S. 1997. cDNA cloning and expression of the gene encoding murine stromelysin-2 (MMP-10). Gene 202: 75-81.

# CHROMOSOMAL LOCATION

Genetic locus: Mmp3 (mouse) mapping to 9 A1.

# **PRODUCT**

MMP-3 (m): 293T Lysate represents a lysate of mouse MMP-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## **STORAGE**

Store at -20 $^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

MMP-3 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MMP-3 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## **RESEARCH USE**

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

#### **PROTOCOLS**

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

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