

# MMP-2 (h): 293 Lysate: sc-176407

## 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.

## REFERENCES

- Collier, I.E., et al. 1988. H-ras oncogene-transformed human bronchial epithelial cells (TBE-1) secrete a single metalloprotease capable of degrading basement membrane collagen. *J. Biol. Chem.* 263: 6579-6587.
- Huhtala, P., et al. 1990. Completion of the primary structure of the human type IV collagenase preproenzyme and assignment of the gene (CLG4) to the q21 region of chromosome 16. *Genomics* 6: 554-559.
- Birkedal-Hansen, H., et al. 1993. Matrix metalloproteinases: a review. *Crit. Rev. Oral Biol. Med.* 4: 197-250.
- Reinemer, P., et al. 1994. Structural implications for the role of the N-terminus in the "superactivation" of collagenases. A crystallographic study. *FEBS Lett.* 338: 227-233.
- Machein, U., et al. 1997. Expression of several matrix metalloproteinase genes in human monocytic cells. *Adv. Exp. Med. Biol.* 421: 247-251.
- Thant, A.A., et al. 1999. Ras pathway is required for the activation of MMP-2 secretion and for the invasion of src-transformed 3Y1. *Oncogene* 18: 6555-6563.

## CHROMOSOMAL LOCATION

Genetic locus: MMP2 (human) mapping to 16q12.2.

## PRODUCT

MMP-2 (h): 293 Lysate represents a lysate of human MMP-2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

MMP-2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive MMP-2 antibodies. Recommended use: 10-20 µl per lane.

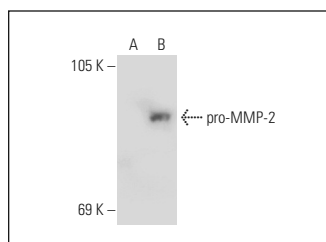
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

MMP-2 (2C1): sc-13594 is recommended as a positive control antibody for Western Blot analysis of enhanced human MMP-2 expression in MMP-2 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



MMP-2 (2C1): sc-13594. Western blot analysis of MMP-2 expression in non-transfected: sc-110760 (A) and human MMP-2 transfected: sc-176407 (B) 293 whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.