

MMP-7 (D-15): sc-26680

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-7 (also designated Pump-1, matrilysin or uterine metalloproteinase) degrades casein, fibronectin and gelatin types I, III, IV and V. MMP-7 mRNA is produced exclusively by epithelial cells in mouse and expression is restricted to specific organs, suggesting that in addition to matrix degradation and remodeling, MMP-7 may be involved in the differentiated function of these organs.

REFERENCES

1. Muller, D., et al. 1988. The collagenase gene family in humans consists of at least four members. *Biochem. J.* 253: 187-192.
2. Birkedal-Hansen, H., et al. 1993. Matrix metalloproteinases: a review. *Crit. Rev. Oral Biol. Med.* 4: 197-250.
3. 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.
4. mai, K., et al. 1995. Matrix metalloproteinase 7 (matrilysin) from human rectal carcinoma cells. Activation of the precursor, interaction with other matrix metalloproteinases and enzymic properties. *J. Biol. Chem.* 270: 6691-6697.
5. Wilson, C.L., et al. 1995. The metalloproteinase matrilysin is preferentially expressed by epithelial cells in a tissue-restricted pattern in the mouse. *Mol. Biol. Cell* 6: 851-869.

CHROMOSOMAL LOCATION

Genetic locus: *Mmp7* (mouse) mapping to 9 A1.

SOURCE

MMP-7 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MMP-7 of rat 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-26680 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

MMP-7 (D-15) is recommended for detection of MMP-7 of rat and, to a lesser extent, mouse 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).

Suitable for use as control antibody for MMP-7 siRNA (m): sc-41554, MMP-7 siRNA (r): sc-108053, MMP-7 shRNA Plasmid (m): sc-41554-SH, MMP-7 shRNA Plasmid (r): sc-108053-SH, MMP-7 shRNA (m) Lentiviral Particles: sc-41554-V and MMP-7 shRNA (r) Lentiviral Particles: sc-108053-V.

Molecular Weight of pro-MMP-7: 30 kDa.

Molecular Weight of MMP-7 active form: 20 kDa

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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



Try **MMP-7 (ID2): sc-58388**, our highly recommended monoclonal alternative to MMP-7 (D-15).