SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-7 (C-17): sc-8832

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-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.

CHROMOSOMAL LOCATION

Genetic locus: MMP7 (human) mapping to 11q22.2; Mmp7 (mouse) mapping to 9 A1.

SOURCE

MMP-7 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MMP-7 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8832 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MMP-7 (C-17) is recommended for detection of MMP-7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MMP-7 siRNA (h): sc-41553, MMP-7 siRNA (m): sc-41554, MMP-7 siRNA (r): sc-108053, MMP-7 shRNA Plasmid (h): sc-41553-SH, MMP-7 shRNA Plasmid (m): sc-41554-SH, MMP-7 shRNA Plasmid (r): sc-108053-SH, MMP-7 shRNA (h) Lentiviral Particles: sc-41553-V, 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.

Positive Controls: HeLa whole cell lysate: sc-2200 or MMP-7 (h3): 293T Lysate: sc-158741.

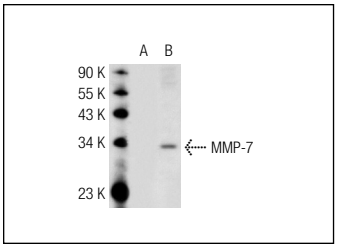
STORAGE

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

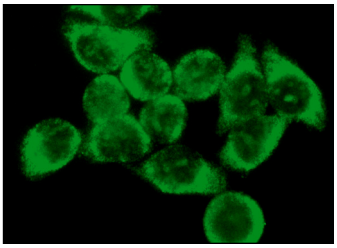
RESEARCH USE

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

DATA



MMP-7 (C-17): sc-8832. Western blot analysis of MMP-7 expression in non-transfected: sc-117752 (**A**) and human MMP-7 transfected: sc-158741 (**B**) 293T whole cell lysates.



MMP-7 (C-17): sc-8832. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Ouyang, X.S., et al. 2001. Up-regulation of TRPM-2, MMP-7 and ID-1 during sex hormone-induced prostate carcinogenesis in the Noble rat. Carcinogenesis 22: 965-973.
2. Wroblewski, L.E., et al. 2003. Stimulation of MMP-7 (matrilysin) by *Helicobacter pylori* in human gastric epithelial cells: role in epithelial cell migration. J. Cell Sci. 116: 3017-3026.
3. Jiang, W.G., et al. 2005. Targeting Matrilysin and its impact on tumor growth *in vivo,* the potential implications in breast cancer therapy. Clin. Cancer Res. 11: 6012-6019.
4. Felisbino, S.L., et al. 2007. Epithelial-stromal transition of MMP-7 immunolocalization in the rat ventral prostate following bilateral orchiectomy. Cell Biol. Int. 31: 1173-1178.
5. Lommatzsch, A., et al. 2008. Are low inflammatory reactions involved in exudative age-related macular degeneration? Morphological and immunhistochemical analysis of AMD associated with basal deposits. Graefes Arch. Clin. Exp. Opthalmol. 246: 803-810.
6. Keld, R., et al. 2010. The ERK MAP kinase-PEA3/ETV4-MMP-1 axis is operative in oesophageal adenocarcinoma. Mol. Cancer 9: 313.

PROTOCOLS

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