

# MMP-7 (A-5): sc-515703

## 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.

## SOURCE

MMP-7 (A-5) is a mouse monoclonal antibody raised against amino acids 1-267 representing full length MMP-7 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MMP-7 (A-5) is available conjugated to agarose (sc-515703 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515703 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515703 PE), fluorescein (sc-515703 FITC), Alexa Fluor® 488 (sc-515703 AF488), Alexa Fluor® 546 (sc-515703 AF546), Alexa Fluor® 594 (sc-515703 AF594) or Alexa Fluor® 647 (sc-515703 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515703 AF680) or Alexa Fluor® 790 (sc-515703 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

MMP-7 (A-5) is recommended for detection of MMP-7 of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-41553-SH and MMP-7 shRNA (h) Lentiviral Particles: sc-41553-V.

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

Molecular Weight of MMP-7 active form: 20 kDa.

Positive Controls: MMP-7 (h3): 293T Lysate: sc-158741.

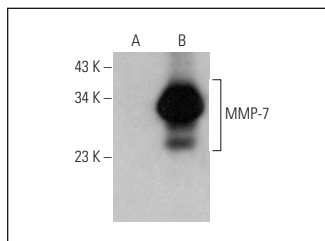
## RESEARCH USE

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

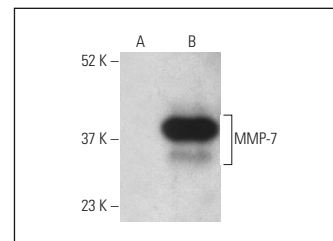
## STORAGE

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

## DATA



MMP-7 (A-5): sc-515703. 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 (A-5) HRP: sc-515703 HRP. Direct 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.

## SELECT PRODUCT CITATIONS

- Deng, H., et al. 2018. Susceptibility of epithelial cells cultured from different regions of human cervix to HPV16-induced immortalization. *PLoS ONE* 13: e0199761.
- Spychala, A. and Rütger, U. 2019. FTO affects hippocampal function by regulation of BDNF processing. *PLoS ONE* 14: e0211937.
- Zheng, Y.W., et al. 2020. FAM83A promotes lung cancer progression by regulating the Wnt and Hippo signaling pathways and indicates poor prognosis. *Front. Oncol.* 10: 180.
- Pan, K., et al. 2021. SPARC promotes pancreatic cancer cell proliferation and migration through autocrine secretion into the extracellular milieu. *Oncol. Lett.* 21: 485.
- Zhou, P.L., et al. 2021. Circular RNA hsa\_circ\_0000277 sequesters miR-4766-5p to upregulate LAMA1 and promote esophageal carcinoma progression. *Cell Death Dis.* 12: 676.
- Lucci, A., et al. 2022. δ-tocotrienol enhances the anti-tumor effects of interferon α through reactive oxygen species and Erk/MAPK signaling pathways in hepatocellular carcinoma cells. *Can. J. Physiol. Pharmacol.* 100: 453-463.
- Liu, Y., et al. 2022. Mechanism of two alkaloids isolated from coral endophytic fungus for suppressing angiogenesis in atherosclerotic plaque in HUVEC. *Int. Immunopharmacol.* 109: 108931.
- Wijewantha, N., et al. 2023. Enhancing anti-tumorigenic efficacy of eugenol in human colon cancer cells using enzyme-responsive nanoparticles. *Cancers* 15: 1145.

## PROTOCOLS

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