SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-11 (SL3.05): sc-58381

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-3, MMP-10 and MMP-11 (also designated stromelysin-1, -2 and -3) 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 it is expressed 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

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7. 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: MMP11 (human) mapping to 22q11.23.

SOURCE

MMP-11 (SL3.05) is a mouse monoclonal antibody raised against recombinant active MMP-11 of human origin.

STORAGE

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

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.1% stabilizer protein.

APPLICATIONS

MMP-11 (SL3.05) is recommended for detection of latent, active and degraded MMP-11 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

Suitable for use as control antibody for MMP-11 siRNA (h): sc-35947, MMP-11 shRNA Plasmid (h): sc-35947-SH and MMP-11 shRNA (h) Lentiviral Particles: sc-35947-V.

Molecular Weight of MMP-11: 60 kDa.

SELECT PRODUCT CITATIONS

1. Vázquez-Vega, S., Sánchez-Suárez, L.P., Contreras-Paredes, A., Castellanos-Juárez, E., Peñarroja-Flores, R., Lizano-Soberón, M., Andrade-Cruz, R., García-Carrancá, A. and Benítez-Bribiesca, L. 2010-2011. Nuclear co-expression of $p14^{ARF}$ and $p16^{INK4A}$ in uterine cervical cancer-derived cell lines containing HPV. Cancer Biomark. 8: 341-350.
2. Paul, R.K., Kumar, M. and Kataria, M. 2017. Production of a bioactive recombinant chicken matrix metalloproteinase-11 peptide in *Escherichia coli*. Biotechnol. Appl. Biochem. 64: 555-563.
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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.