SANTA CRUZ BIOTECHNOLOGY, INC.

MMP-26 (TG-9): sc-100558

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Metalloproteinases (MMPs) are a family of proteins that are involved in the breakdown of the extracellular matrix during normal cellular events, including reproduction, tissue remodeling and embryonic development. MMP-26 (matrix metallopeptidase-26), also known as endometase or matrilysin-2, is a 261 amino acid metalloproteinase that is secreted as an inactive protein and is activated upon cleavage by extracellular proteinases. Expressed specifically in the placenta and uterus, MMP-26 hydrolyzes (and subsequently degrades) a variety of proteins such as fibrinogen, fibronectin, vitronectin and collagen type IV (COL4). MMP-26 binds zinc and calcium as cofactors and, unlike other MMP family members, lacks a conserved C-terminal domain. MMP-26 is widely expressed in a number of malignant tumor lines where it is thought to play an important role in tissue remodeling events that are associated with carcinogenesis.

REFERENCES

1. Uría, J.A. and López-Otín, C. 2000. Matrilysin-2, a new matrix metalloproteinase expressed in human tumors and showing the minimal domain organization required for secretion, latency, and activity. Cancer Res. 60: 4745-4751.
2. Park, H.I., et al. 2000. Identification and characterization of human endometase (matrix metalloproteinase-26) from endometrial tumor. J. Biol. Chem. 275: 20540-20544.
3. de Coignac, A.B., et al. 2000. Cloning of MMP-26. A novel matrilysin-like proteinase. Eur. J. Biochem. 267: 3323-3329.
4. Li, W., et al. 2004. Matrix metalloproteinase-26 is associated with estrogen-dependent malignancies and targets α1-antitrypsin serpin. Cancer Res. 64: 8657-8665.
5. Pilka, R., et al. 2004. Endometrial TIMP-4 mRNA is high at midcycle and in hyperplasia, but down-regulated in malignant tumours. Coordinated expression with MMP-26. Mol. Hum. Reprod. 10: 641-650.
6. Bister, V., et al. 2005. Matrilysins-1 and -2 (MMP-7 and -26) and metalloelastase (MMP-12), unlike MMP-19, are up-regulated in necrotizing enterocolitis. J. Pediatr. Gastroenterol. Nutr. 40: 60-66.
7. Lee, S., et al. 2006. Coordinated peak expression of MMP-26 and TIMP-4 in preinvasive human prostate tumor. Cell Res. 16: 750-758.

CHROMOSOMAL LOCATION

Genetic locus: MMP26 (human) mapping to 11p15.4.

SOURCE

MMP-26 (TG-9) is a mouse monoclonal antibody raised against recombinant MMP-26 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MMP-26 (TG-9) is recommended for detection of MMP-26 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MMP-26 siRNA (h): sc-106230, MMP-26 shRNA Plasmid (h): sc-106230-SH and MMP-26 shRNA (h) Lentiviral Particles: sc-106230-V.

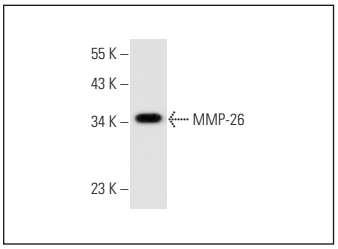
Molecular Weight of MMP-26: 29 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or HeLa whole cell lysate: sc-2200.

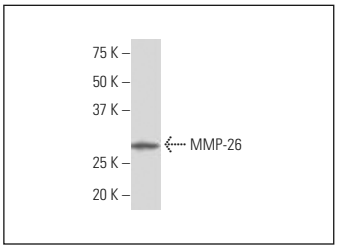
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MMP-26 (TG-9): sc-100558. Western blot analysis of MMP-26 expression in HeLa whole cell lysate.



MMP-26 (TG-9): sc-100558. Western blot analysis of MMP-26 expression in HL-60 whole cell lysate.

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.

PROTOCOLS

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