

TIMP-3 (W-18): sc-9906



The Power to Question

BACKGROUND

TIMP-1, TIMP-2, TIMP-3 and TIMP-4 (for tissue inhibitor of metalloproteinases-1, -2, -3 and -4) complex with metalloproteinases such as collagenases, gelatinases and stromelysins, resulting in irreversible inactivation of the metalloproteinase. TIMP-1 was found to be identical to EPA (erythroid-potentiating activity). Parathyroid hormone has been shown to be a regulator of TIMP-2 in osteoblastic cells. TIMP-3 may be involved in regulating trophoblastic invasion of the uterus as well as in regulating remodeling of the extracellular matrix during the folding of epithelia, and in the formation, branching and expansion of epithelial tubes. TIMP-4 is most highly expressed in heart and low levels of TIMP-4 are expressed in liver, brain, lung, thymus and spleen.

REFERENCES

1. Docherty, A.J., et al. 1985. Sequence of human tissue inhibitor of metalloproteinases and its identity to erythroid-potentiating activity. *Nature* 318: 66-69.
2. Carmichael, D.F., et al. 1986. Primary structure and cDNA cloning of human fibroblast collagenase inhibitor. *Proc. Natl. Acad. Sci. USA* 83: 2407-2411.

CHROMOSOMAL LOCATION

Genetic locus: TIMP3 (human) mapping to 22q12.3; Timp3 (mouse) mapping to 10 C1.

SOURCE

TIMP-3 (W-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TIMP-3 of human 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-9906 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TIMP-3 (W-18) is recommended for detection of TIMP-3 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TIMP-3 (W-18) is also recommended for detection of TIMP-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TIMP-3 siRNA (h): sc-37022, TIMP-3 siRNA (m): sc-37023, TIMP-3 shRNA Plasmid (h): sc-37022-SH, TIMP-3 shRNA Plasmid (m): sc-37023-SH, TIMP-3 shRNA (h) Lentiviral Particles: sc-37022-V and TIMP-3 shRNA (m) Lentiviral Particles: sc-37023-V.

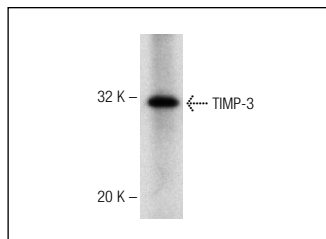
Molecular Weight of TIMP-3: 30 kDa.

Positive Controls: mouse placenta extract: sc-364247.

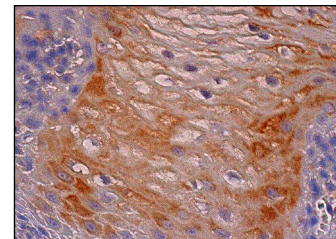
STORAGE

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

DATA



TIMP-3 (W-18): sc-9906. Western blot analysis of TIMP-3 expression in mouse placenta tissue extract.



TIMP-3 (W-18): sc-9906. Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

1. Sugita, H., et al. 2004. Expression of matrix metalloproteinase, a disintegrin and metalloproteinase, and tissue inhibitor of metalloproteinase in human chondrosarcoma. *Acta Histochem. Cytochem.* 37: 319-323.
2. Sugita, H., et al. 2004. Correlation between the histological grade of chondrosarcoma and the expression of MMPs, ADAMTSs and TIMPs. *Anticancer Res.* 24: 4079-4084.
3. Beckers, J., et al. 2005. Identification and validation of novel ErbB-2 (HER2, NEU) targets including genes involved in angiogenesis. *Int. J. Cancer* 114: 590-597.
4. Bao, L., et al. 2007. Decidual prolactin silences the expression of genes detrimental to pregnancy. *Endocrinology* 148: 2326-2334.
5. Hammoud, L., et al. 2007. Endothelial nitric oxide synthase promotes neonatal cardiomyocyte proliferation by inhibiting tissue inhibitor of metalloproteinase-3 expression. *Cardiovasc. Res.* 75: 359-368.
6. Lommatzsch, A., et al. 2008. Are low inflammatory reactions involved in exudative age-related macular degeneration? Morphological and immunohistochemical analysis of AMD associated with basal deposits. *Graefes Arch. Clin. Exp. Ophthalmol.* 246: 803-810.

RESEARCH USE

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



Try **TIMP-3 (B-2): sc-373839** or **TIMP-3 (E-2): sc-373842**, our highly recommended monoclonal alternatives to TIMP-3 (W-18).