

TIMP-1 (102D1): sc-58435

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-potential 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.

CHROMOSOMAL LOCATION

Genetic locus: TIMP1 (human) mapping to Xp11.23.

SOURCE

TIMP-1 (102D1) is a mouse monoclonal antibody raised against recombinant TIMP-1 of human origin.

PRODUCT

Each vial contains IgG₁ in 250 µl of PBS with < 0.1% sodium azide.

APPLICATIONS

TIMP-1 (102D1) is recommended for detection of TIMP-1 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 TIMP-1 siRNA (h): sc-29505, TIMP-1 shRNA Plasmid (h): sc-29505-SH and TIMP-1 shRNA (h) Lentiviral Particles: sc-29505-V.

Molecular Weight of TIMP-1: 23 kDa.

Molecular Weight of glycosylated TIMP-1: 28 kDa.

Positive Controls: TIMP-1 (h): 293 Lysate: sc-110547.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

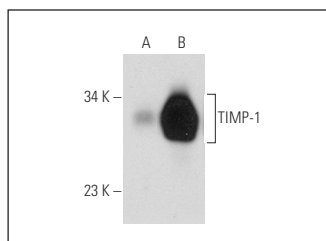
PROTOCOLS

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

RESEARCH USE

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

DATA



TIMP-1 (SPM355): sc-56489. Western blot analysis of TIMP-1 expression in non-transfected: sc-117752 (A) and human TIMP-1 transfected: sc-110547 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tsai, Y.Y., et al. 2010. Effect of TIMP-1 and MMP in pterygium invasion. *Invest. Ophthalmol. Vis. Sci.* 51: 3462-3467.
2. Mathalone, N., et al. 2011. MMP expression in leaking filtering blebs and tears after glaucoma filtering surgery. *Graefes Arch. Clin. Exp. Ophthalmol.* 249: 1047-1055.
3. Avadanei, R., et al. 2013. High variability in MMP2/TIMP2 and MMP9/TIMP1 expression in secondary liver tumors. *Rom. J. Morphol. Embryol.* 54: 479-485.
4. Lengyel, J.N., et al. 2014. Phosphatidylinositol 3-kinase mediates the ability of retinol to decrease colorectal cancer cell invasion. *Nutr. Cancer* 66: 1352-1361.
5. Giusca, S.E., et al. 2015. Prognostic significance of MMP-9 and TIMP-1 in liver metastases. *Rom. J. Morphol. Embryol.* 56: 357-364.



See **TIMP-1 (G-6): sc-365905** for TIMP-1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647.