

TIMP-2 (B-12): sc-365671

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 has been 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 and 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, with low levels expressed in liver, brain, lung, thymus and spleen.

CHROMOSOMAL LOCATION

Genetic locus: TIMP2 (human) mapping to 17q25.3; Timp2 (mouse) mapping to 11 E2.

SOURCE

TIMP-2 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 190-220 near the C-terminus of TIMP-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365671 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

TIMP-2 (B-12) is recommended for detection of TIMP-2 of mouse, rat and 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).

TIMP-2 (B-12) is also recommended for detection of TIMP-2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for TIMP-2 siRNA (h): sc-29506, TIMP-2 siRNA (m): sc-37275, TIMP-2 shRNA Plasmid (h): sc-29506-SH, TIMP-2 shRNA Plasmid (m): sc-37275-SH, TIMP-2 shRNA (h) Lentiviral Particles: sc-29506-V and TIMP-2 shRNA (m) Lentiviral Particles: sc-37275-V.

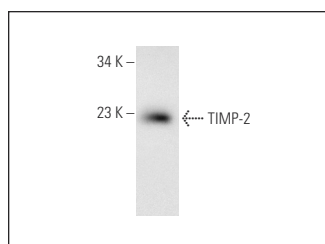
Molecular Weight of TIMP-2: 21 kDa.

Positive Controls: human lung extract: sc-363767, HeLa whole cell lysate: sc-2200 or human salivary gland extract: sc-363762.

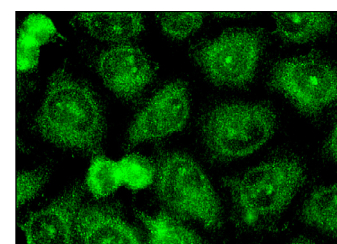
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TIMP-2 (B-12): sc-365671. Western blot analysis of full length human recombinant TIMP-2 under non-reducing conditions.



TIMP-2 (B-12): sc-365671. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Cai, D.S., et al. 2013. Protective effects of bone marrow-derived endothelial progenitor cells and *Houttuynia cordata* in lipopolysaccharide-induced acute lung injury in rats. *Cell. Physiol. Biochem.* 32: 1577-1586.
- Du, M., et al. 2016. Nkx2-5 is expressed in atherosclerotic plaques and attenuates development of atherosclerosis in apolipoprotein E-deficient mice. *J. Am. Heart Assoc.* 5: e004440.
- Huang, L., et al. 2017. Allicin inhibits the invasion of lung adenocarcinoma cells by altering tissue inhibitor of metalloproteinase/matrix metalloproteinase balance via reducing the activity of phosphoinositide 3-kinase/Akt signaling. *Oncol. Lett.* 14: 468-474.
- Chen, Y., et al. 2019. Active constituent in the ethyl acetate extract fraction of *Terminalia bellirica* fruit exhibits antioxidation, antifibrosis, and proapoptosis capabilities *in vitro*. *Oxid. Med. Cell. Longev.* 2019: 5176090.
- Phipps, S.M., et al. 2020. High content imaging of Barrett's-associated high grade dysplasia cells following siRNA library screening reveals acid responsive regulators of cellular transitions. *Cell. Mol. Gastroenterol. Hepatol.* 10: 601-622.

RESEARCH USE

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



See **TIMP-2 (3A4): sc-21735** for TIMP-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.