

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TIMP-1 in ELISAs and Western blots. In ELISAs, this antibody does not cross-react with recombinant mouse TIMP-1 or recombinant human TIMP-2.
Source	Monoclonal Mouse IgG _{2B} Clone # 63515
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TIMP-1 Cys24-Ala207 Accession # P01033
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

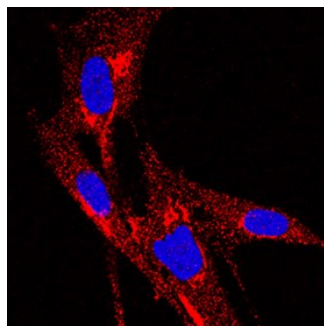
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human TIMP-1 Western Blot Standard (Catalog # WBC021) under non-reducing conditions only
Immunocytochemistry	3-25 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 µg/10 ⁶ cells	Human T cells fixed with paraformaldehyde and permeabilized with saponin
Human TIMP-1 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human TIMP-1 Antibody (Catalog # MAB970)
ELISA Detection	0.1-0.4 µg/mL	Human TIMP-1 Biotinylated Antibody (Catalog # BAF970)
Standard		Recombinant Human TIMP-1 (Catalog # 970-TM)
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

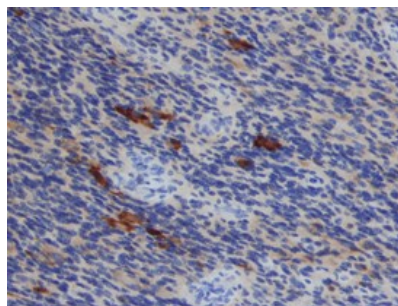
DATA

Immunocytochemistry



TIMP-1 in Wi-38 Human Cell Line. TIMP-1 was detected in immersion fixed Wi-38 human lung fibroblast cell line using Mouse Anti-Human TIMP-1 Monoclonal Antibody (Catalog # [MAB970](#)) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # [NL007](#)) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and endoplasmic reticulum. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



TIMP-1 in Human Astrocytoma. TIMP-1 was detected in immersion fixed paraffin-embedded sections of human astrocytoma using Mouse Anti-Human TIMP-1 Monoclonal Antibody (Catalog # [MAB970](#)) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # [CTS013](#)). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS002](#)) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Tissue inhibitors of metalloproteinases or TIMPs are a family of proteins that regulate the activation and proteolytic activity of the zinc enzymes known as matrix metalloproteinases (MMPs). There are four members of the family, TIMP-1, TIMP-2, TIMP-3, and TIMP-4. TIMP-1 is a glycoprotein with a molecular mass of 28 kDa produced by a wide range of cell types. TIMP-1 inhibits active MMP-mediated proteolysis by forming an N-terminal, non-covalent binary complex with the MMP active site. TIMP-1 also associates C-terminally with Pro-MMP-9 in a complex which may play a role in regulating activation. Independent of MMPs, TIMP-1 has been shown to have a role in tissue homeostasis.