

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse TIMP-2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) TIMP-1 and rhTIMP-3 is observed. In direct ELISAs, less than 1% cross-reactivity with rhTIMP-4 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human TIMP-2 Cys27-Pro220 Accession # P16035
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

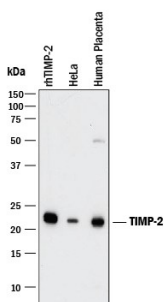
APPLICATIONS

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	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize Recombinant Human TIMP-2 (0.143 µg/mL, Catalog # 971-TM) inhibition of Recombinant Human MMP-2 (0.2 µg/mL, Catalog # 902-MPN or 902-MP) cleavage of the fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH ₂ (10 µM, Catalog # ES001). The Neutralization Dose (ND ₅₀) is typically 2.6 µg/mL.	

DATA

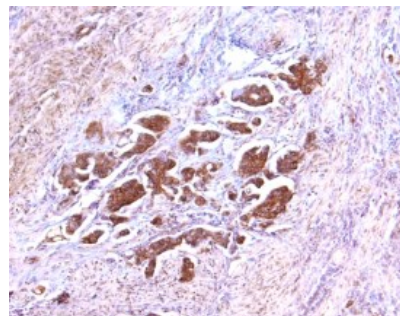
Western Blot



Detection of Human TIMP-2 by Western Blot.

Western blot shows Recombinant Human TIMP-2 Western Blot Standard Protein (Catalog # [WBC023](#)) and lysates of HeLa human cervical epithelial carcinoma cell line and human placenta tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse TIMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF971) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # [HAF017](#)). A specific band was detected for TIMP-2 at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

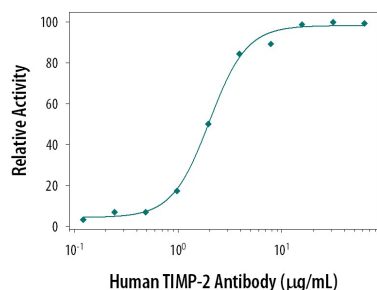
Immunohistochemistry



TIMP-2 in Human Ovarian Cancer Tissue.

TIMP-2 was detected in immersion fixed paraffin-embedded sections of human ovarian cancer tissue using 15 µg/mL Goat Anti-Human/Mouse TIMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF971) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS008](#)) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Neutralization



Neutralization of TIMP-2 Activity by Human TIMP-2 Antibody.

Recombinant Human MMP-2 (0.2 µg/mL, Catalog # [902-MPN](#) or [902-MP](#)) activity is measured in the presence of Recombinant Human/Mouse TIMP-2 (0.143 µg/mL, Catalog # [971-TM](#)) that has been preincubated with increasing concentrations of Goat Anti-Human TIMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF971). The ND₅₀ is typically 2.6 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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-2 is a non N-glycosylated protein with a molecular mass of 22 kDa produced by a wide range of cell types, which inhibits MMPs non-covalently by the formation of binary complexes. TIMP-2 also has erythroid-potentiating and cell growth promoting activities.