

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse TIMP-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant rat TIMP-1 is observed, less than 5% cross-reactivity with recombinant human (rh) TIMP-1 is observed, and less than 1% cross-reactivity with rhTIMP-2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse TIMP-1 Cys25-Arg205 Accession # P12032
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

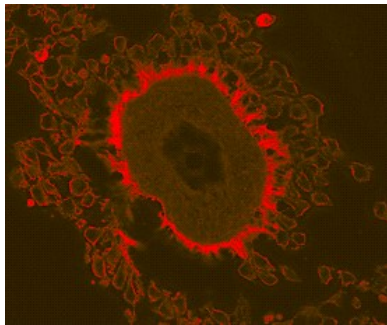
## APPLICATIONS

**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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse TIMP-1 Western Blot Standard (Catalog # <a href="#">WBC022</a> )
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse TIMP-1 (Catalog # <a href="#">980-MT</a> ), see our available <a href="#">Western blot detection antibodies</a>
<b>Neutralization</b>	Measured by its ability to neutralize Recombinant Mouse TIMP-1 (0.07 µg/mL, Catalog # <a href="#">980-MT</a> ) inhibition of Recombinant Mouse/Rat MMP-2 (0.2 µg/mL, Catalog # <a href="#">924-MP</a> ) cleavage of the fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH <sub>2</sub> (10 µM, Catalog # <a href="#">ES001</a> ). The Neutralization Dose (ND <sub>50</sub> ) is typically 1.3 µg/mL.	

## DATA

### Immunohistochemistry



**TIMP-1 in Mouse Ovary.** TIMP-1 was detected in perfusion fixed frozen sections of mouse ovary using Goat Anti-Mouse TIMP-1 Antigen Affinity-purified Polyclonal Antibody (red; Catalog # [AF980](#)) at 15 µg/mL overnight at 4 °C.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Tissue inhibitors of metalloproteinases or TIMPs are a family of homologous proteins that regulate the activity of matrix metalloproteinases (MMPs) (1, 2). There are four known members of the family, TIMP-1, TIMP-2, TIMP-3, and TIMP-4 that have been found to exhibit multiple functions, including inhibition of active MMPs, pro-MMP activation, cell growth promotion, matrix binding, inhibition of angiogenesis and the induction of apoptosis. Structurally, TIMPs have two domains, an N-terminal domain and a C-terminal domain. Each domain consists of three disulfide-bonded loops. TIMP-1 is a glycoprotein produced by a wide range of cell types. Through its N-terminal domain, TIMP-1 inhibits active MMPs by forming a non-covalent binary complex with the MMP active site. The C-terminal domain of TIMP-1 interacts with the C-terminal domain of pro-MMP-9, which may play a role in regulating pro-MMP-9 activation.

### References:

1. Murphy, G. and F. Willenbrock (1995) *Methods Enzymol.* **248**:496.
2. Brew, K. *et al.* (2000) *Biochim. Biophys. Acta* **1477**:267.