**Species Reactivity**  
Mouse

**Specificity**  
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.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
Mouse myeloma cell line NS0-derived recombinant mouse TIMP-1  
Cys25-Arg205  
Accession # P12032

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*A 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

<table>
<thead>
<tr>
<th>Application</th>
<th>Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
<td>Recombinant Mouse TIMP-1 Western Blot Standard (Catalog # WBC022)</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>25 μg/mL</td>
<td>Conditioned cell culture medium spiked with Recombinant Mouse TIMP-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Catalog # 980-MT), see our available Western blot detection antibodies</td>
</tr>
<tr>
<td>Neutralization</td>
<td></td>
<td>Measured by its ability to neutralize Recombinant Mouse TIMP-1 (0.07 μg/mL, Catalog # 980-MT) inhibition of Recombinant Mouse/Rat MMP-2 (0.2 μg/mL, Catalog # 924-MP) cleavage of the fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH₂ (10 μM, Catalog # ES001). The Neutralization Dose (ND₅₀) is typically 1.3 μg/mL.</td>
</tr>
</tbody>
</table>

**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**

**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.

**Stability & Storage**  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 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 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:**