Species Reactivity: Rat

Specificity: Detects rat TIMP-1 in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant human (rh) TIMP-1 and recombinant mouse TIMP-1 is observed and less than 1% cross-reactivity with rhTIMP-2, rhTIMP-3, and rhTIMP-4 is observed.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity-purified

Immunogen: Mouse myeloma cell line NS0-derived recombinant rat TIMP-1 Cys24-Ala217

Accession #: P30120

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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recombinant Rat TIMP-1 (Catalog # 580-RT)</td>
<td>0.1 µg/mL</td>
</tr>
<tr>
<td>Perfusion fixed frozen sections of rat brain</td>
<td>5-15 µg/mL</td>
</tr>
<tr>
<td>Conditioned cell culture medium spiked with Recombinant Rat TIMP-1</td>
<td>25 µg/mL</td>
</tr>
</tbody>
</table>

*Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °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 (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 32-34 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.