

**DESCRIPTION**

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	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.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant rat TIMP-1 Cys24-Ala217 Accession # P30120
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

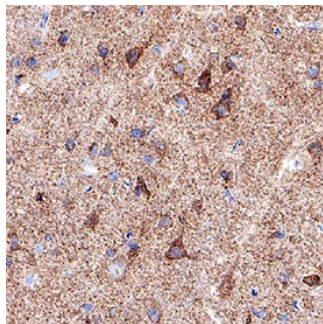
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Rat TIMP-1 (Catalog # 580-RT)
<b>Immunohistochemistry</b>	5-15 µg/mL	Perfusion fixed paraffin-embedded sections of Rat Brain.
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Rat TIMP-1 (Catalog # 580-RT), <a href="#">see our available Western blot detection antibodies</a>

**DATA**

**Immunohistochemistry**



**Detection of TIMP-1 in Rat Brain.** TIMP-1 was detected in perfusion fixed paraffin-embedded sections of Rat Brain using Goat Anti-Rat TIMP-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF580) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal cell bodies. [View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.](#)

**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 (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.