Mouse TIMP-4 Antibody

Recombinant Monoclonal Rat IgG_1 Clone # 866106R

Catalog Number: MAB7667

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse TIMP-4 in direct ELISAs.
Source	Recombinant Monoclonal Rat IgG_1 Clone # 866106R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse TIMP-4 Met1-Pro224 Accession # Q9JHB3
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.*

ELISA

This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human/Mouse TIMP-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF974).

This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Mouse TIMP-4 DuoSet ELISA Kit (Catalog # DY7667-05) for convenient development of a sandwich ELISA.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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 secreted proteins that regulate the activation and proteolytic activity of the zinc enzymes known as Matrix Metalloproteinases (MMPs). There are four known members of the family, TIMP-1, -2, -3, and -4. TIMP-4 is produced by a wide range of tissues, particularly brain, heart, ovary and skeletal muscle (1, 2). Limited studies have shown that TIMP-4 has a tumor suppressive effect against Wilm's tumor, exhibits negative correlation with glioma maligancy and is found in breast carcinoma cells (3, 5). TIMP-4 inhibits MMP-mediated proteolysis by forming a noncovalent binary complex with the MMP active site through its N-terminal domain. In addition, it binds to the hemopexin-like domain of proMMP-2 through its C-terminal domain in a manner similar to TIMP-2 (6). However, unlike TIMP-2, TIMP-4 does not promote proMMP-2 activation by MT1-MMP (MMP-14) (7). Although TIMP-4 is a potent inhibitor of most MMPs, it is not an effective inhibitor of ADAMs, such as TACE (8, 9).

References:

1. Greene *et al.* (1996) J. Biol. Chem. **271**:30375.
2. Leco *et al.* (1997) FEBS Lett. **401**:213.
3. Geliker *et al.* (2001) Oncogene **20**:4337.
4. Groft *et al.* (2001) Br. J. Cancer **85**:55.
5. Hurst *et al.* (2001) Biochem. Biophys. Res. Comm. **281**:166.
6. Bigg *et al.* (1997) J. Biol. Chem. **272**:15496.
7. Hernandez-Barrantes et al. (2001) Biochem. Biophys. Res. Comm. **281**:126.
8. Amour *et al.* (1998) FEBS Lett. **435**:39.
9. Liu *et al.* (1997) J. Biol. Chem. **272**:20479.

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