

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human TIMP-3 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) TIMP-1, -2, or -4 is observed. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 277128 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human TIMP-3 Cys24-Pro211 Accession # P35625 |
| Conjugate | Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm |
| Formulation | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

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 |
|---|----------------------------------|--|
| Intracellular Staining by Flow Cytometry | 0.25-1 µg/10 ⁶ cells | MDA-MBA-231 human breast cancer cell line fixed with paraformaldehyde and permeabilized with saponin |

PREPARATION AND STORAGE

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| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

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-3 is a glycoprotein with a molecular mass of 30 kDa produced by a wide range of cell types. TIMP-3 inhibits active MMP-mediated proteolysis by forming a non-covalent binary complex with the MMP active site through its N-terminal domain. In addition, TIMP-3 is the only known member of the TIMP family that is an effective inhibitor of ADAMs such as TACE (1). TIMP-3 also uniquely shows high affinity for binding to the extracellular matrix (2). Point mutations in the TIMP-3 C-terminal domain have been reported to result in Sorsby's fundus dystrophy, a disease leading to macular degeneration and loss of vision.

References:

1. Amour, A. *et al.* (1998) FEBS Lett. **435**:39.
2. Leco, K.J. *et al.* (1994) J. Biol. Chem. **269**:9352.

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