

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human MMP-14/MT1-MMP in direct ELISAs and Western blots. Does not detect <i>E. coli</i> -expressed recombinant human MMP-14 catalytic domain (aa 112-284).   |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 128527  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human MMP-14/MT1-MMP<br>Tyr112-Ala541 (predicted)<br>Accession # P50281  |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm  |
| <b>Formulation</b>        | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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                                   |
|-----------------------|---------------------------------|--|
| <b>Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells | MDA-MB-231 human breast cancer cell line |

#### PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | <b>Protect from light. Do not freeze.</b><br>● 12 months from date of receipt, 2 to 8 °C as supplied.             |

#### BACKGROUND

As the first member of membrane type (MT) MMPs, MMP-14, also known as MT1-MMP, plays an important role in extracellular matrix (ECM) remodeling by being able to degrade type I collagen, activate pro-MMP-2 and process cell adhesion molecules such as CD44 and integrin  $\alpha_v$  (1). MMP-14 is therefore a key enzyme in many physiological and pathological processes such as angiogenesis and tumor invasion. Structurally, MMP-14 consists of the following domains: a pro domain containing the furin cleavage site, a catalytic domain containing the zinc-binding site, a hinge region, a hemopexin-like domain, a transmembrane domain, and a cytoplasmic tail (2).

#### References:

1. Seike, M. (2003) *Cancer Lett.* **194**:1.
2. Sato, H. *et al.* (1994) *Nature* **370**:61.

#### PRODUCT SPECIFIC NOTICES

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