

## Human MMP-14/MT1-MMP Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF918

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MMP-14/MT1-MMP in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human MMP-14/MT1-MMP
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 Ivophilized 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.			
	Recommended Concentration	Sample	
Western Blot	0.1 µg/mL	Recombinant Human MMP-14/MT1-MMP (Catalog # 918-MP)	
Flow Cytometry	2.5 μg/10 <sup>6</sup> cells	See Below	
Immunohistochemistry	5-15 μg/mL	Immersion fixed paraffin-embedded sections of human kidney cancer tissue	
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.		

DATA



Detection of MMP-14/MT1-MMP in MDA-MB-231 Human Cell Line by Flow Cytometry. MDA-MB-231 human breast cancer cell line was stained with Goat Anti-Human MMP-14/MT1-MMP Antigen Affinitypurified Polyclonal Antibody (Catalog # AF918, filled histogram) or control antibody (Catalog # Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # Catalog # F0108).

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
Stability & Storage	<ul> <li>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</li> <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

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 cytoplamasic tail (2). Recombinant Human MMP-14 consists of the pro and catalytic domains.

## References:

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

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