

#### DESCRIPTION

|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects both pro and active forms of human MMP-8 in Western blots. In Western blots, no cross-reactivity with recombinant human (rh) MMP-1, -2, -3, -7, -9, -10, -12, or -13 is observed.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2A</sub> Clone # 100608  |
| <b>Purification</b>       | Protein A or G purified from ascites   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human MMP-8<br>Phe21-Gly467<br>Accession # AAZ38714  |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 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.

|   | <b>Recommended Concentration</b> | <b>Sample</b>   |
|---|----------------------------------|---|
| <b>Intracellular Staining by Flow Cytometry</b> | 0.25-1 µg/10 <sup>6</sup> cells  | Jurkat human acute T cell leukemia cell line fixed with paraformaldehyde and permeabilized with saponin |

#### 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> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul> |

#### BACKGROUND

Matrix metalloproteinases (MMPs) are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-8 (neutrophil collagenase) is expressed in neutrophils, where it is stored in specific granules. MMP-8 release from the neutrophils is stimulated by various factors such as interleukins 1 and 8, TNF-α and GM-CSF. MMP-8 is capable of cleaving types I, II and III triple-helical collagen, gelatin peptides, fibronectin, proteoglycans, aggrecan, serpins, β-casein and peptides such as angiotensin and substance P. In addition to its function in phagocytosis, MMP-8 has a high capacity for infiltrating connective tissue, and is implicated in the breakdown of the extracellular matrix in diseases such as rheumatoid arthritis. Structurally, MMP-8 consists of several domains: a pro-domain that is cleaved upon activation, a catalytic domain containing the zinc-binding site, a short hinge region and a hemopexin-like domain. MMP-8 is heavily glycosylated.

#### PRODUCT SPECIFIC NOTICES

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