

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human MMP-8 in direct ELISAs and Western blots. In direct ELISAs, less than 25% cross-reactivity with recombinant mouse MMP-8 and recombinant rat MMP-8 is observed. |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                                                                    |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human MMP-8<br>Phe21-Gly467<br>Accession # AAZ38714                                                                          |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                          |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                                                                 |
| *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>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunoprecipitation</b>  | Optimal dilution of this antibody should be experimentally determined. |

## 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> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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.

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