

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat MMP-8 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant mouse MMP-8 and 50% cross-reactivity with recombinant human MMP-8 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 400102
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat MMP-8 Leu21-Pro466 Accession # O88766
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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. 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, collagenase 2) 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 (1). The amino acid sequence of rat MMP-8 shares 91%, 75% and 73% identity with that of mouse, dog and human, respectively.

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