



Mouse Anti-Rat MMP-9 monoclonal antibody, clone NN12 (CABT-ZB649)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	It reacts with Rat MMP-9
Target	MMP-9
Immunogen	Recombinant Rat MMP9/MMP-9/CLG4B Protein
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Rat
Clone	NN12
Purification	Protein A purified
Conjugate	Unconjugated
Applications	ELISA(cap) This antibody will detect MMP-9 in antibody pair set. [ABPR-ZB228]
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Rat MMP9/MMP-9/CLG4B. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	Purified, Liquid
Concentration	Lot specific
Size	50 µL, 100 µL, 200 µL, 1 mL

Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction	Matrix metalloproteinases (MMPs) are neutral proteinases that are involved in the breakdown and remodeling of the extracellular matrix (ECM) under a variety of physiological and pathological conditions, such as morphogenesis, differentiation, angiogenesis, and tissue remodeling, as well as pathological processes including inflammation, arthritis, cardiovascular diseases, pulmonary diseases, and tumor invasion. MMP9, also known as 92-kDa gelatinase B/type IV collagenase, is secreted from neutrophils, macrophages, and some transformed cells, and is the most complex family member in terms of domain structure and regulation of its activity. It plays an important role in tissue remodeling in normal and pathological inflammatory processes. MMP-9 is a major secretion product of macrophages and a component of cytoplasmic granules of neutrophils and is particularly important in the pathogenesis of inflammatory, infectious, and neoplastic diseases in many organs including the lung. This enzyme is also secreted by lymphocytes and stromal cells upon stimulation by inflammatory cytokines, or upon delivery of bi-directional activation signals following integrin-mediated cell-cell or cell-extracellular matrix (ECM) contacts. Since the integrity of the tissue architecture is closely dependent on the delicate balance between MMPs and their inhibitors, excessive production of MMP-9 is linked to tissue damage and degenerative inflammatory disorders. As a consequence, regulation of gene transcription and tissue-specific expression of MMP-9 in normal and diseased states are being actively investigated to pave the way for new therapeutic targets. Besides, the dramatic overexpression of MMP-9 in cancer and various inflammatory conditions points to the molecular mechanisms controlling its expression as a potential target for eventual rational therapeutic intervention.
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Keywords	MMP9; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); CLG4B, matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase), matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type
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GENE INFORMATION

Synonyms	MMP9; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); CLG4B, matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase), matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type
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Entrez Gene ID [81687](#)

UniProt ID [P50282](#)
