

# Recombinant Human Matrix Metalloproteinase 8 (Neutrophil Collagenase)

Cat. No. MMP8-409H Lot. No. (See product label)

## SPECIFICATION

**Species** Human

**Source** Mammalian Cells

**Description**

Matrix metalloproteinase 8 (neutrophil collagenase), also known as MMP8, is a part of the MMP family which are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP"s are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. However, the enzyme encoded by MMP8 is stored in secondary granules within neutrophils and is activated by autolytic cleavage. MMP8 is a neutral metalloproteinase of the fibrillar collagenase family that also includes MMP-1 and MMP-13. In contrast to the other collagenases, MMP-8 has a very limited tissue distribution, thought to be restricted to neutrophils and chondrocytes. Its function is degradation of type I, II and III collagens. MMP-8 is the predominant collagenase present in normal healing wounds and suggests that overexpression and activation of this collagenase may be involved in the pathogenesis of nonhealing chronic ulcers. MMP-8 might also be useful in monitoring periodontal disease in diabetes.

**Molecular Weight** The predicted molecular weight of Recombinant Human MMP-8 is 51 kDa. However, the actual molecular weight as observed by migration on SDS Page is 75 kDa.

**State Of Matter** Lyophilized.

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<b>Purity</b>	>90% by SDS Page and analyzed by silver stain.
<b>Endotoxin</b>	<1.0 EU/g as determined by the LAL method.
<b>Storage</b>	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">MMP8 matrix metalloproteinase 8 (neutrophil collagenase) [ Homo sapiens ]</a>
<b>Synonyms</b>	MMP8; matrix metalloproteinase 8 (neutrophil collagenase); HNC; CLG1; PMNL-CL; PMNL collagenase; matrix metalloproteinase 8; EC3.4.24.34; MMP-8; PMNL-CL; PMNL collagenase; Matrix metalloproteinase-8
<b>Gene ID</b>	<a href="#">4317</a>
<b>mRNA Refseq</b>	<a href="#">NM_002424</a>
<b>Protein Refseq</b>	<a href="#">NP_002415</a>
<b>MIM</b>	<a href="#">120355</a>
<b>UniProt ID</b>	<a href="#">P22894</a>
<b>Chromosome Location</b>	11q22.3

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**Function**

calcium ion binding; metalloendopeptidase activity; peptidase activity; serine-type endopeptidase activity; zinc ion binding

PDB rendering based on1a85.



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