Active Recombinant Human MMP8 protein, Catalytic Domain No Activation Required

Cat. No. MMP8-154H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human matrix metalloproteinase-8 (MMP-8, collagenase-2, neurophil collagenase) cloned from human cDNA, expressed in*E. coli.*The enzyme consists of the catalytic domain of human MMP-8 (residues 105-262 swissprot accession P22894). MW=17.7kDa.
Species	Human
Source	E.coli
ProteinLength	105-262 a.a.
Description	Proteins of the matrix metalloproteinase (MMP) family 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 this gene is stored in secondary granules within neutrophils and is activated by autolytic cleavage. Its function is degradation of type I, II and III collagens.
Purity	> 95% by SDS-PAGE. The enzyme was observed as a single band migrating at a molecular weight of < 20 kDa.
Specific Activity	>80 U/

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	μg. Activity described as U=100 pmol/min at 25ºC using a colorimetric assay with thio peptolide Ac-Pro-Leu-Gly-[2-mercapto-4-methyl-pentanoyl]-Leu-Gly-OC2H5 (Biomol) as substrate.
Usage	Enzyme kinetic studies, cleavage of target substrates and screening of inhibitors.
Supplied As	0.2 mg/ml in 20mM Tris, pH 7.2, 10mM CaCl2, 0.1mM ZnCl2, 0.3M NaCl, 0.5M Acetohydroxamic Acid (AHA). The concentration is calculated from the absorbance at 280nm (e280 = 27310 M-1 cm-1).
Note	Under the above described conditions, to avoid precipitation or protein dimerization, the product can be concentrated to a maximum of 0.5mM.
Storage	-80ºC. The enzyme is stable at -20ºC for at least 1 week. After initial defrost, aliquot enzyme into individual tubes and refreeze at -80ºC. Avoid repeated freeze/defrost cycles.

GENE INFORMATION

Gene Name	MMP8 matrix metallopeptidase 8 (neutrophil collagenase) [Homo sapiens]
Synonyms	MMP8; matrix metallopeptidase 8 (neutrophil collagenase); HNC; CLG1; PMNL-CL; matrix metalloproteinase 8; PMNL collagenase; matrix metalloproteinase 8 (neutrophil collagenase); EC 3.4.24.34; Neutrophil collagenase; Matrix metalloproteinase-8; MMP-8
Gene ID	4317
mRNA Refseq	NM_002424
Protein Refseq	NP_002415

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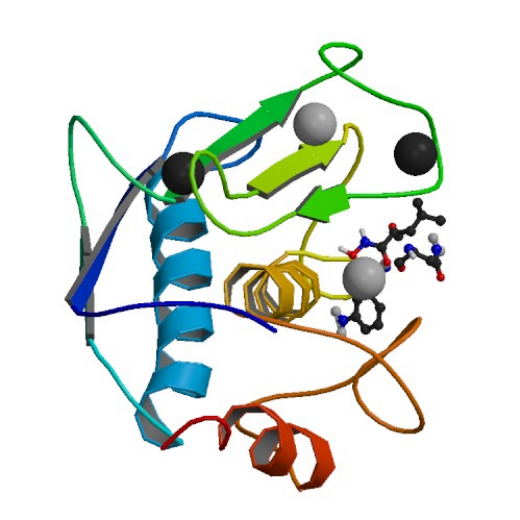
MIM	120355
UniProt ID	P22894
Chromosome Location	11q21-q22
Function	calcium ion binding; metalloendopeptidase activity; peptidase activity; serine-type endopeptidase activity; zinc ion binding
PDB rendering based on 1a85.	

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