Active Recombinant Human Matrix Metallopeptidase 8(neutrophil collagenase), His-tagged

Cat. No. MMP8-2529H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the human MMP8 was expressed, fused with a polyhistidine tag at the C-terminus. The recombinant human MMP8 consists of 458 amino acids after removal of the signal peptide and has a predicted molecular mass of 52.6 kDa.
Species	Human
Source	Human Cells
ProteinLength	458 amino acids
Description	Matrix metalloproteinases (MMPs) are a family of zinc-dependent endopeptidases that degrade components of the extracellular matrix (ECM) and play essential roles in various physiological processes such as morphogenesis, differentiation, angiogenesis and tissue remodeling, as well as pathological processes including inflammation, arthritis, cardiovascular diseases, pulmonary diseases and tumor invasion. Neutrophil collagenase, also known as Matrix metalloproteinase-8, MMP8, and CLG1, is a member of the peptidase M10A family. MMP8 may affect the metastatic behaviour of breast cancer cells through protection against lymph node metastasis, underlining the importance of anti-target identification in drug development. MMP8 participates in wound repair by contributing to the resolution of inflammation and open the possibility to develop new strategies for treating wound healing defects.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Predicted N Terminal	Phe 21
Form	Lyophilized from sterile 50mM Tris,10mM CaCl2 , 150mM NaCl, pH 7.5. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA.
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2, The specific activity is >450 pmoles / min / μg
Molecular Mass	The recombinant human MMP8 consists of 458 amino acids after removal of the signal peptide and has a predicted molecular mass of 52.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhMMP8 is approximately 65-75 kDa due to glycosylation.
Endotoxin	1.0 eu/μg of the protein as determined by the lal
Purity	>90 % as determined by SDS-PAGE
Stability	Samples are stable for up to twelve months from date of receipt at -70 °C.
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	MMP8 matrix metallopeptidase 8 (neutrophil collagenase) [Homo sapiens]
Official Symbol	MMP8
Synonyms	MMP8; matrix metallopeptidase 8 (neutrophil collagenase); CLG1,matrix metalloproteinase 8 (neutrophil collagenase); neutrophil collagenase; PMNL

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	collagenase; matrix metalloproteinase-8; matrix metalloproteinase 8 (neutrophil collagenase); HNC; CLG1; MMP-8; PMNL-CL;
Gene ID	4317
mRNA Refseq	NM_002424
Protein Refseq	NP_002415
MIM	120355
UniProt ID	P22894
Chromosome Location	11q21-q22
Pathway	Activation of Matrix Metalloproteinases, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Extracellular matrix organization, organism-specific biosystem; Matrix Metalloproteinases, organism-specific biosystem;
Function	calcium ion binding; metalloendopeptidase activity; peptidase activity; serine-type endopeptidase activity; zinc ion binding;

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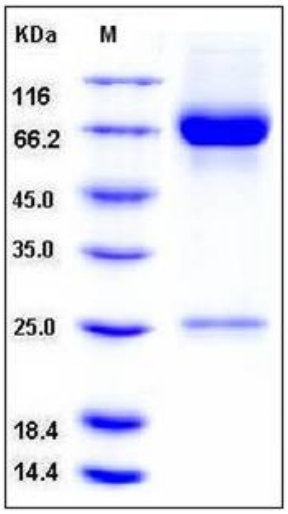
MMP8 protein	

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