

Recombinant Human MMP9, His-tagged

Cat. No. MMP9-77H Lot. No. (See product label)

SPECIFICATION

Product Overview	MMP-9 Human Recombinant produced in E.Coli is single, a non-glycosylated, Polypeptide chain containing 338 amino acids fragment (113-450) corresponding to the catalytic domain of the protein, having a total molecular mass of 42.03kDa and fused with a 4.5kDa amino-terminal hexahistidine tag. The MMP-9 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	113-450 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. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling.
Form	Sterile Filtered clear solution. (0.57 mg/ml) MMP-9 protein is supplied in 20mM Tris-HCl pH 8.0 and 50% glycerol.

 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

AA Sequence

DLKWHHHNITYWIQNYSEDLPRAVIDDAFARAFALWSAVTPLTFTRVYSRDADIVIQF
 GVAEHGDGYPPFDGKDGL LAHAFPPGPGIQGDAHFDDELWLSLKGKGVVVPTRFGN
 ADGAACHFPFIFEGRSYSACTTDGRSDGLPWCSTTANY DTDDRFGFCPSERLYTR
 DGNADGKPCQFPFIFQGSYSACTTDGRSDGYRWCATTANYDRDKLFGFCPTRAD
 STV MGGNSAGELCVFPFTFLGKEYSTCTSEGRGDGRLWCATTSNFSDKKGWFC
 PDQGYSLFLVAAHEFGHALGLDHS SVPEALMYPMYRFTEGPPLHKDDVNGIRHLYG
 P.

Purity Greater than 95.0% as determined by SDS-PAGE.

Stability Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Please avoid freeze thaw cycles.

GENE INFORMATION

Gene Name [MMP9 matrix metalloproteinase 9 \(gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase\) \[Homo sapiens \]](#)

Official Symbol MMP9

Synonyms MMP9; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); GELB; CLG4B; MMP-9; MANDP2; matrix metalloproteinase 9; type V collagenase; macrophage gelatinase; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); EC 3.4.24.35; Matrix metalloproteinase-9; 92 kDa type IV collagenase; 92 kDa gelatinase; Gelatinase B; GELB; 67 kDa matrix metalloproteinase-9; 82 kDa matrix metalloproteinase-9; OTTHUMP00000031674; type V collagenase

Gene ID [4318](#)

mRNA Refseq [NM_004994](#)

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Protein Refseq	NP_004985
MIM	120361
UniProt ID	P14780
Chromosome Location	20q11.2-q13.1
Pathway	Bladder cancer; Leukocyte transendothelial migration; Pathways in cancer
Function	calcium ion binding; collagen binding; metalloendopeptidase activity; peptidase activity; zinc ion binding

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