

## Active Recombinant Human MMP9 protein

Cat. No. MMP9-155H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human MMP9 catalytic domain(Phe107-Pro449) fused with purification tag at C-terminal was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	107-449 a.a.
<b>Description</b>	Matrix metalloproteinase 9 (MMP-9) belongs to a class of enzymes that belong to the zinc-metalloproteinase family involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, angiogenesis, bone development, wound healing, cell migration, learning and memory. Its also associated with numerous pathological processes, including cancer, immunologic and cardiovascular diseases.
<b>Form</b>	Liquid. In 50mM TRIS, pH 7.5, containing 1mM calcium chloride, 300mM sodium chloride, 5µM zinc chloride, 0.1% Brij-35 and 15% glycerol.
<b>Bio-activity</b>	≥20 U/µg
<b>Molecular Mass</b>	39 kDa
<b>Purity</b>	≥95% (SDS-PAGE)

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<b>Unit Definition</b>	One U=100pmol/min at 37 centigrade using the colorimetric thiopeptolide Ac-Pro-Leu-Gly-S-Leu-Leu-Gly-OEt (100M) as substrate.
<b>Applications</b>	Useful tool to study enzyme kinetics, cleave target substrates, and screen for inhibitors.
<b>Storage</b>	Long Term Storage: -80 centigrade. Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -80 centigrade.

## GENE INFORMATION

<b>Gene Name</b>	MMP9 matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) [ Homo sapiens ]
<b>Official Symbol</b>	MMP9
<b>Synonyms</b>	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 IV collagenase); matrix metalloproteinase-9; 92 kDa gelatinase; type V collagenase; macrophage gelatinase; 92 kDa type IV collagenase; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); GELB; CLG4B; MMP-9; MANDP2;
<b>Gene ID</b>	4318
<b>mRNA Refseq</b>	NM_004994
<b>Protein Refseq</b>	NP_004985
<b>MIM</b>	120361

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<b>UniProt ID</b>	P14780
<b>Chromosome Location</b>	20q12-q13
<b>Pathway</b>	Activation of Matrix Metalloproteinases, organism-specific biosystem; Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Endochondral Ossification, organism-specific biosystem; Extracellular matrix organization, organism-specific biosystem;
<b>Function</b>	collagen binding; fibronectin binding; metal ion binding; metalloendopeptidase activity; peptidase activity; protein binding; protein complex binding; zinc ion binding;

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