

Active Recombinant Human MMP9 protein

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

SPECIFICATION

Product Overview	Recombinant Human MMP9 catalytic domain(Phe107-Pro449) fused with purification tag at C-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	107-449 a.a.
Description	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.
Form	Liquid. In 50mM TRIS, pH 7.5, containing 1mM calcium chloride, 300mM sodium chloride, 5μM zinc chloride, 0.1% Brij-35 and 15% glycerol.
Bio-activity	≥20 U/μg
Molecular Mass	39 kDa
Purity	≥95% (SDS-PAGE)

 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

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

GENE INFORMATION

Gene Name	MMP9 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) [Homo sapiens]
Official Symbol	MMP9
Synonyms	MMP9; matrix metallopeptidase 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;
Gene ID	4318
mRNA Refseq	NM_004994
Protein Refseq	NP_004985
MIM	120361

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UniProt ID	P14780
Chromosome Location	20q12-q13
Pathway	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;
Function	collagen binding; fibronectin binding; metal ion binding; metalloendopeptidase activity; peptidase activity; protein binding; protein complex binding; zinc ion binding;

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