Recombinant Human MMP9, Catalytic Domain, T7-tagged

Cat. No. MMP9-774H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Metalloproteinase-9 (MMP-9, 92 kDa type IV collagenase, 92 kDa gelatinase, Gelatinase B, GELB) catalytic domain with fibronectins domains cloned from human cDNA, was expressed in*E. coli.*The recombinant enzyme consists of the catalytic domain of human MMP-9 (residues 112-445) with a N-term T7 tag. MW= 37.7kDa.
Species	Human
Source	E.coli
ProteinLength	112-445 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 MMPs 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.
Purity	> 95% by SDS-PAGE. In an SDS-PAGE gel, the enzyme runs as a single band migrating between 35 and 45 kDa.

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

Supplied As	0.15mg/ml in 50mM Tris pH 7.2, 5mM CaCl2, 0.1mM ZnCl2, 0.3M NaCl, 0.5M Acetohydroxamic Acid (AHA), 10% glycerol, Brij35 0.05%. The concentration is calculated from the absorbance at 280nm (ε280 = 67100 M-1 cm-1calculated).
Specific Activity	>10U/μg. 1U=100pmol/min at 25ºC using a colorimetric assay with thiopeptolide Ac-Pro-Leu-Gly-[2-mercapto-4-methyl-pentanoyl]-Leu-Gly-OC2H5 (Biomol).
Usage	Study enzyme kinetics, cleavage of target substrates and screen for inhibitors.
Storage	-80℃. It is recommended that thawing and dilution of the enzyme be done in ice and within as short a time as possible before start of the assay. After initial defrost, aliquot product into individual tubes and refreeze at -80℃. Avoid repeated freeze/defrost cycles.

GENE INFORMATION

Gene Name	MMP9 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) [Homo sapiens]
Synonyms	MMP9; matrix metallopeptidase 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

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

Protein Refseq	NP_004985
MIM	120361
UniProt ID	P14780
Chromosome Location	20q12-q13
Pathway	Bladder cancer; Leukocyte transendothelial migration; Pathways in cancer
Function	calcium ion binding; collagen binding; metalloendopeptidase activity; peptidase activity; zinc ion binding

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