

Matrix Metalloproteinase 9 (MMP9) Active Protein | MMP9 active protein

Active Matrix Metalloproteinase 9 (MMP9)

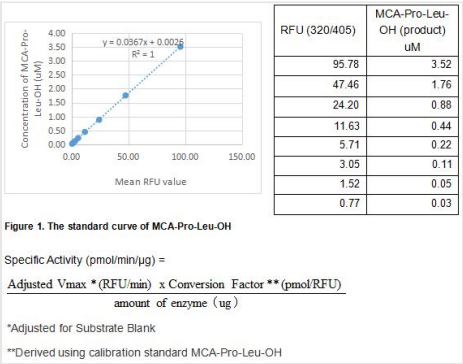
CATALOG # AAA161746	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Matrix Metalloproteinase 9 (MMP9); Active Matrix Metalloproteinase 9 (MMP9); Matrix Metalloproteinase 9; MMP9 active protein (eukaryotic; 293F cell); Human; GELB; Gelatinase B; CLG4B; CLG4-B; 92 KDa Gelatinase; 92kDa Type IV Collagenase4; MMP9 active protein

PRODUCT SPECIFICATIONS

Host	293F cell
Purity/Purification	Greater than 95% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ala20~Asp7 07
Applicable Applications for MMP9 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Eukaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	5.9
Research Area	Enzyme & Kinase, Tumor immunity, Infection immunity, Cardiovascular biology, Hepatology
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

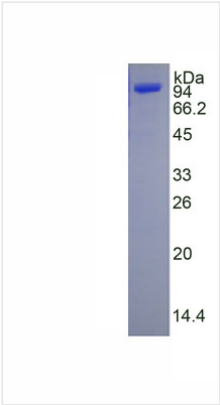


Bioactivity

Matrix metalloproteinases are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-9 (gelatinase B) can degrade a broad range of substrates including gelatin, collagen types IV and V, elastin and proteoglycan core protein. It is believed to act synergistically with interstitial collagenase (MMP-1) in the degradation of fibrillar collagens as it degrades their denatured gelatin forms. MMP-9 is produced by keratinocytes, monocytes, macrophages and PMN leukocytes. MMP-9 is present in most cases of inflammatory responses. The activity of recombinant human MMP9 is measured by its ability to cleave a fluorogenic peptide substrate MCA-Pro-Leu-Gly-Leu-DPA-Ala-Arg-NH2 in the assay buffer 50 mM Tris, 10 mM CaCl2, 150 mM NaCl, 0.05% (w/v) Brij-35, pH 7.5. The rhMMP9 is diluted to 100 ug/ml in assay buffer, then activated by p-aminophenylmercuric acetate (APMA) in a final concentration of 1 mM incubated at 37 degree C for 1 hours. The activated rhMMP9 is diluted to 0.2 ug/mL in assay buffer. Loading into a black well plate 50 uL of 0.2 ug/mL rhMMP9 and start the reaction by adding 50 uL of 20 uM substrate, with a substrate blank containing 50 uL assay buffer, 50 uL substrate, and no rhMMP9. Then read at excitation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The specific activity of recombinant human MMP9 is > 3000 pmol/min/ug.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for MMP9 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	74272287
NCBI GeneID	4318
NCBI Accession #	NP_004985.2
NCBI GenBank Nucleotide #	NM_004994.2
UniProt Accession #	P14780; Q3LR70; Q8N725; Q9H4Z1; Q9UCJ9; Q9UCL1; Q9UDK2; B2R7V9
Molecular Weight	78,458 Da
NCBI Official Full Name	matrix metalloproteinase-9 preproprotein
NCBI Official Synonym Full Names	matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase)
NCBI Official Symbol	MMP9
NCBI Official Synonym Symbols	GELB; CLG4B; MMP-9; MANDP2
NCBI Protein Information	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)
UniProt Protein Name	Matrix metalloproteinase-9
UniProt Gene Name	MMP9

UniProt Synonym Gene Names	CLG4B; MMP-9; GELB
UniProt Entry Name	MMP9_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/293f-cell-active-protein/matrix-metalloproteinase-9-mmp9/161746>