

Matrix Metalloproteinase 3 (MMP3) Active Protein | MMP3 active protein

Active Matrix Metalloproteinase 3 (MMP3)

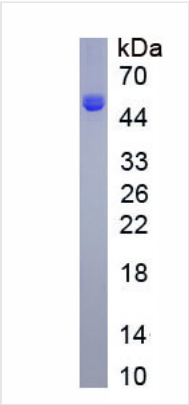
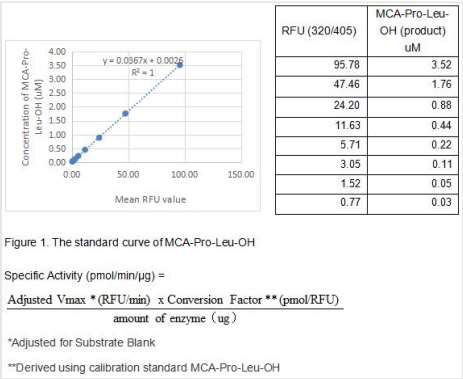
CATALOG # AAA161687	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Matrix Metalloproteinase 3 (MMP3); Active Matrix Metalloproteinase 3 (MMP3); Matrix Metalloproteinase 3; MMP3 active protein (eukaryotic; 293F cell); Human; SL1; STMY; STMY1; STR1; Progelatinase; Stromelysin 1; Transin-14; MMP3 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	Tyr18~Cys4 77
Applicable Applications for MMP3 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
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



SDS-PAGE
Figure. SDS-PAGE

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-3 (stromelysin-1), can degrade a broad range of substrates including collagen alpha chains, aggrecan, laminin, fibronectin, and elastin. MMP-3 does not cleave the triple helical region of interstitial collagens, a characteristic which distinguishes the stromelysins from the collagenases. MMP-3 is expressed by fibroblasts, chondrocytes, osteoblasts, endothelial cells, smooth muscle cells and macrophages. Structurally, MMP-3 may be divided into several distinct domains; a pro-domain which is cleaved upon activation; a catalytic domain containing the zinc binding site; a short hinge region and a carboxyl terminal (hemopexin-like) domain. The activity of recombinant human MMP-3 is measured by its ability to cleave a fluorogenic peptide substrate Mca-Arg-Pro-Lys-Pro-Val-Glu-Nval-Trp-Arg-Lys(Dnp)-NH2 in the assay buffer 50 mM Tris, 10 mM CaCl2, 150 mM NaCl, 0.05% (w/v) Brij-35, pH 7.5. The rhMMP3 is diluted to 200 ug/ml in assay buffer, then activated with 5 ug/ml chymotrypsin at 37 degree C for 30min followed by adding 2 mM PMSF to stop activation. The activated rhMMP3 is diluted to 6.25 ug/mL in assay buffer. Loading into a black well plate 50 uL of 6.25 ug/mL rhMMP3 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 rhMMP3. 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 MMP3 is > 90 pmol/min/ug.

ADDITIONAL INFORMATION

Product Categories/Family for MMP3 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4505217
NCBI GeneID	4314
NCBI Accession #	NP_002413.1
NCBI GenBank Nucleotide #	NM_002422.3
UniProt Accession #	P08254; Q3B7S0; Q6GRF8; B2R8B8
Molecular Weight	53,977 Da
NCBI Official Full Name	stromelysin-1 preproprotein
NCBI Official Synonym Full Names	matrix metalloproteinase 3 (stromelysin 1, procollagenase)
NCBI Official Symbol	MMP3
NCBI Official Synonym Symbols	SL-1; STMY; STR1; CHDS6; MMP-3; STMY1
NCBI Protein Information	stromelysin-1; transin-1; proteoglycanase; matrix metalloproteinase-3; matrix metalloproteinase 3 (stromelysin 1, procollagenase)
UniProt Protein Name	Stromelysin-1

UniProt Gene Name	MMP3
UniProt Synonym Gene Names	STMY1; SL-1; MMP-3
UniProt Entry Name	MMP3_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-3-mmp3/161687>