

Active Recombinant Human MMP3 protein, His-tagged

Cat. No. MMP3-1123H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human MMP3 protein(P08254)(18~477 aa), fused with N-terminal His tag, was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	18-477 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	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-NvaI-Trp-Arg-Lys(Dnp)-NH ₂ in the assay buffer 50 mM Tris, 10 mM Ca

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Cl₂, 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°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 µ of 6.25 ug/mL rhMMP3 and start the reaction by adding 50 µ of 20 µM substrate, with a substrate blank containing 50 µ assay buffer, 50 µ 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/g.

Molecular Mass	53.8kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	MMP3 matrix metalloproteinase 3 (stromelysin 1, procollagenase) [Homo sapiens]
Official Symbol	MMP3
Synonyms	MMP3; matrix metalloproteinase 3 (stromelysin 1, procollagenase); matrix metalloproteinase 3 (stromelysin 1, procollagenase), STMY, STMY1; stromelysin-1; transin-1; proteoglycanase; matrix metalloproteinase-3; matrix metalloproteinase 3 (stromelysin 1, procollagenase); SL-1; STMY; STR1; CHDS6; MMP-3; STMY1;

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MGC126102; MGC126103; MGC126104;

Gene ID [4314](#)

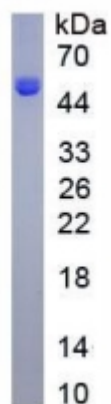
mRNA Refseq [NM_002422](#)

Protein Refseq [NP_002413](#)

MIM [185250](#)

UniProt ID [P08254](#)

SDS-PAGE



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