

MMP-3 Human E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG10233002	(2 µg)
Species: Human	RBG10233010	(10 µg)
Other names: Stromelysin-1, SL-1, Transin-1	RBG10233100	(100 µg)

Description

Matrix metalloproteinases (MMPs) are a family of endoproteases that require zinc and calcium for expressing catalytic activity. These enzymes play a central role in the maintenance and remodeling of the extracellular matrix. Elevated expression of their activity, caused either by up-regulation of their expression or down-regulation of their cognate inhibitors, has been implicated in various degenerative disorders, including arthritis, cardiovascular disease, skeletal growth-plate disorders, and cancer metastasis. MMP-3 degrades fibronectin, laminin, collagens III, IV, and X, and cartilage proteoglycans. Recombinant Human MMP-3 is a 42.8 kDa protein containing the entire catalytic N-terminal domain and the C-terminal domain (378 amino acids).

Research topic

Bone and cartilage metabolism, Cardiovascular disease, Coronary artery disease, Oncology

Amino Acid Sequence

MRTFPGIPKW RKTHLYRIV NYTPDLPKDA VDSAVEKALK VWEVTPPLTF SRLYEGEADI MISFAVREHG DFYPPDGPNG
 VLAHAYAPGP GINGDAHFDDEQWTKDITG TNLFLVAAHE IGHSLGLFHS ANTEALMYPL YHSLTDLTRF RLSQDDINGI
 QSLYGGPPDS PETPLVPTEP VPPEPGTPAN CDPALSFDAY STLRGEILIF KDRHFWRKSL RKLEPELHLI SSFWPSLPSG
 VDAAYEVTSK DLVFIKGNQ FWAIRGNEVR AGYPRGIHTL GFPPTVRKID AAISDKEKNK TYFFVEDKYW RFDEKRNSME
 PGFPPQIAED FPGIDSKIDA VFEEFGFFYF FTGSSQLEFD PNAKKVTHTL KSNSWLNC

Source

E. coli

Purity

98%

Biological Activity

MMP-3 activity was measured by its ability to cleave a chromogenic peptide MMP-3 substrate at room temperature. At a MMP-3 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 75 minutes.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

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