

**Product:** Matrix Metalloproteinase-3 (MMP-3), human, recombinant  
**Catalog #:** 12-4355  
**Amount:** 5 µg

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**DESCRIPTION:**

Recombinant human Matrix Metalloproteinase-3 (rHuMMP-3)  
rHuMMP-3 is also known as Stromelysin-1 or as Transin-1 which hydrolyzes natural collagen at physiological pH and temperature. It dissolves the intervertebral nucleus pulposus and annulus fibrosus of Herniated Lumbar Intervertebral Disk . MMP-3 hydrolyzes components of the extracellular matrix like proteoglycan, laminin, fibronectin, gelatin and collagen types III, IV and IX. It also activates pro-MMP-9 and pro-MMP-8 and superactivates plasmin activated MMP-1. MMP-3 is secreted as a latent proenzyme and is activated by a variety of proteinases, e.g. plasmin, trypsin, chymotrypsin, cathepsin G or human neutrophil elastase. MMP-3 was found to be capable of activating the precursor of IL1-beta.

rHuMMP-3 is a single, non-glycosylated, polypeptide chain containing 230 amino acids and having a molecular mass of 22kDa.

**SOURCE:**

*Escherichia coli*

**PURITY:**

> 98%, as determined by:

a) Analysis by RP-HPLC

b) Anion-exchange FPLC

c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel

< 0.1 ng/µg (IEU/µg) of APC

**ENDOTOXIN:****DIMERS AND AGGREGATES:**

< 1% as determined by silver-stained SDS-PAGE gel analysis

**FORM:**

Purified, in 0.1% BSA

**STORAGE:**

-20°C (aliquot), avoid freezing and thawing cycles

**BIOLOGICAL ACTIVITY:**

rHuMMP-3 is fully biologically active when compared to standards  
≥1,250 mU/mg protein (H. Nagase, et al; J. Biol. Chem. 269, 20952, 1994).  
One unit is defined as the amount of enzyme that hydrolyzes 1µmol of  
MCA-Arg-Pro-Lys-Pro-Val-Glu-Nva-Trp-Arg-Lys(DNP)-NH<sub>2</sub> per min.  
at 37°C, pH 7.0

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