

MMP3

Recombinant Human Matrix Metalloproteinase 3

Catalog No. CRM012A Quantity: 2 µg

CRM012B 10 μg CRM012C 1.0 mg

Alternate Names: MMP-3, Stromelysin 1, SL-1

Description: Recombinant Human MMP-3 produced in HEK293 cells is the proform of the Human

MMP3 [Tyr18-Cys477 (Lys45Glu)] and fused with a C-terminal polyhistidine tag.

MMP-3 enzyme is also known as Stromelysin-1or 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.

Concentration: P08254
Gene ID: 4314

Source: HEK293 cells.

Molecular Weight: 52 kDa

Formulation: The MMP-3 is supplied as a 0.2µm filtered solution in Tris, NaCl and Brij35.

Purity: Greater than 95% as determined by SDS-PAGE.

Purification: MMP-3 is purified by proprietary chromatographic techniques.

Biological Activity: The activity was measured by its ability to cleave the fluorogenic peptide substrate, Mca-

RPKPVE-Nval-WRK(Dnp)-NH2. The specific activity is > 150 pmoles/min/µg. Recombinant Human MMP-3 protein pro form needs to be activated with

Chymotrypsin.

Activation Protocol:

1. Dilute MMP3 to 20µg/ml in the Assay Buffer: 50mM Tris, 10mM CaCl2, 150mM NaCl,

0.05% (w/v) and Brij 35, pH 7.5.

2. Activate MMP3 by adding Chymotrypsin(Sigma, Catalog#C-3142,1mg/ml stock in

1mM HCl) to a final concentration of 5ug/ml.

3. Incubate at 37°C for 30 minutes.

4. Stop activation with 2mM PMSF. Pre-warm the PMSF to 37°C prior to adding to

sample.

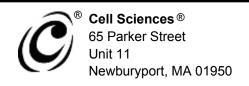
Physical Appearance: Sterile-filtered colorless solution.

Storage & Stability: Store at 2-8°C if entire vial will be used within 2-4 weeks. For longer storage, prepare

working aliquots and store at -20°C to -80°C.

Avoid multiple freeze-thaw cycles.

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Toll Free: 888-769-1246 E-mail: info@cellsciences.com
Phone: 978-572-1070 Website: www.cellsciences.com
Fax: 978-992-0298