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32-2548: MMP 3 HEK Recombinant Protein

Alternative Name : Stromelysin-1,EC 3.4.24.17,Matrix metalloproteinase-3,MMP-3,Transin-1,SL-1,STMY,STR1,STMY1,MGC126102,MGC126103,MGC126104.

Description

Source : HEK293 cells. MMP-3 Human Recombinant produced in HEK293 cells is a proform of the Human MMP3 [Tyr18-Cys477 (Lys45Glu)] and fused with a ployhistide tag at the C-terminus, having an Mw of 52kDa. MMP-3 is purified by proprietary chromatographic techniques. 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.

Product Info

Amount :	10 µg
Purification :	Greater than 95% as determined by SDS-PAGE.
Content :	The MMP-3 is supplied as a 0.2µm filtered solution in 20mM Tris-HCl, 150mM NaCl and 0.05% Brij35, pH 7.5.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.Avoid multiple freeze-thaw cycles.

Application Note

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 to a final concentration of 5 µg/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.