

37-1111: Human MMP-3 Recombinant Protein(Discontinued)

Reactivity : Human

Alternative Name : CHDS6 Protein, MMP-3 Protein, SL-1 Protein, STMY Protein, STMY1 Protein, STR1 Protein,

Description

Source : E. coli

Matrix metalloproteinase 3 (abbreviated as MMP3) is also known as stromelysin 1 and progelatinase. MMP3 is a member of the matrix metalloproteinase (MMP) family whose members are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, tissue remodeling, and disease processes including arthritis and metastasis. As a secreted zinc-dependent endopeptidase, MMP3 exerts its functions mainly in extracellular matrix. This protein is activated by two major endogenous inhibitors: alpha2-macroglobulin and tissue inhibitors of metalloproteinases (TIMPs). MMP3 plays a central role in degrading collagen types II, III, IV, IX, and X, proteoglycans, fibronectin, laminin, and elastin. In addition, MMP3 can also activate other MMPs such as MMP1, MMP7, and MMP9, rendering MMP3 crucial in connective tissue remodeling. Dysregulation of MMPs has been implicated in many diseases including arthritis, chronic ulcers, encephalomyelitis and cancer. Synthetic or natural inhibitors of MMPs result in inhibition of metastasis, while up-regulation of MMPs led to enhanced cancer cell invasion.

Product Info

Amount : 3 Recombinant Protein(Discontinued) / 20 µg

Purification : > 97 % as determined by SDS-PAGE

Content : Formulation Lyophilized from sterile 50mM Tris, 10mM CaCL₂, 1uM ZnCL₂, 50mM NaCl, 0.5% Brij35, pH 7.0
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Tyr18-Thr272

Application Note

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nva-WR-K(Dnp)-NH₂. The specific activity is >300 pmoles/min/µg. (Activation description: The proenzyme needs to be activated by Chymotrypsin for an activated form).

Other pack size also available.

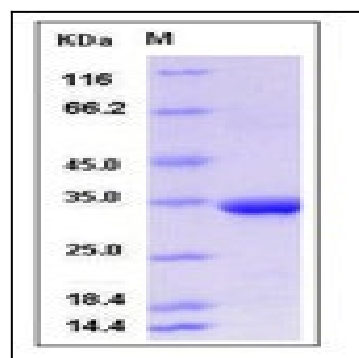


Fig 1: Human MMP-3 Recombinant Protein