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Datasheet for ABIN7317858 MMP3 Protein

Overview

Quantity:	20 µg
Target:	MMP3
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	Recombinant Human MMP-3 Protein (Active)
Sequence:	Tyr 18-Thr 272
Characteristics:	A DNA sequence encoding the human MMP3 (AAA36321.1) N-terminal fragment (Tyr 18-Thr 272) was expressed and purified.
Purity:	> 97 % as determined by reducing SDS-PAGE.
Biological Activity Comment:	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nva-WR-K(Dnp)-NH ₂ , AnaSpec, Catalog # 27114. The specific activity is >300 pmoles/min/µg. (Activation description: The proenzyme needs to be activated by Chymotrypsin for an activated form)

Target Details

Target:	MMP3
Alternative Name:	MMP-3 (MMP3 Products)
Background:	Background: Matrix metalloproteinase 3 (abbreviated as MMP3) is also known as stromelysin 1

Target Details

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 metalloproteases (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.

Synonym: Stromelysin-1, SL-1, Matrix metalloproteinase-3, Transin-1, MMP3, STMY1, CHDS6, MMP-3, SL-1, STMY, STR1

Molecular Weight: 29 kDa

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 50 mM Tris, 10 mM CaCl₂, 1 μM ZnCl₂, 50 mM NaCl, 0.5 % Brij35, pH 7.0

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.