Recombinant Human MMP-3(Lys45Glu) Protein(Halo Tag)

Catalog Number: PDMH100464

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

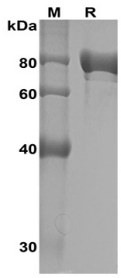
Description

Species	Human
Source	Mammalian-derived Human MMP-3 proteins Tyr18-Cys477(Lys45Glu), with an C-terminal Halo
Calculated MW	83.4 kDa
Observed MW	83 kDa
Accession	P08254
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human MMP-3 proteins, 2μg/lane of Recombinant Human MMP-3 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 83 KD

Background

Matrix metallopeptidase 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 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 active other MMPs such as MMP1, MMP7, and MMP9, rendering MMP3 crucial in connective tissue remodeling. Dysregulatoin 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.