RP01928

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Recombinant Human MMP-7 Protein

Catalog No.: RP01928 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
CHO Cells	4316	P09237

Tags
C-His

Synonyms
MMP7; MPSL1; PUMP1;Matrilysin; 3.4.24.23; Matrin; Matrix metalloproteinase-7; MMP-7; Pump-1 protease; Uterine metalloproteinase

Product Information

Source

Purification
≥ 85 % as determined by SDS-PAGE.

Endotoxin
< 0.01 EU/μg of the protein by LAL method

Formulation
Lyophilized from 0.22 μm filtered solution in 10mM HEPES，5mM CaCl2,150mM NaCl (pH 7.5). Normally 8% trehalose is added as protectant before lyophilization.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

MMP-7,Degrades casein, gelatins of types I, III, IV, and V, and fibronectin. Activates procollagenase.Matrix metalloproteinases (MMPs) are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-7 (matrilysin) is expressed in epithelial cells of normal and diseased tissues, and is capable of digesting a large series of proteins of the extracellular matrix including collagen IV and X, gelatin, casein, laminin, aggrecan, entactin, elastin and versican. MMP-7 is implicated in the activation of other proteinases such as plasminogen, MMP-1, MMP-2, and MMP-9. In addition to its roles in connective tissue remodeling and cancer, MMP-7 also regulates intestinal alpha □ defensin activation in innate host defense, releases tumor necrosis factor-alpha in a model of herniated disc resorption, and cleaves FasL to generate a soluble form in a model of prostate involution. Structurally, MMP-7 is the smallest of the MMPs and consists of two domains: a pro-domain that is cleaved upon activation and a catalytic domain containing the zinc-binding site.

Basic Information

Description
Recombinant Recombinant Human MMP-7 Protein is produced by CHO Cells expression system. The target protein is expressed with sequence (Met1-Lys267) of Human MMP-7 (Accession #NP_002414.1) fused with a His tag at the C-terminus.

Bio-Activity
Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2 (RD,Catalog # ES001). The specific activity is >812 pmol/min/μg, as measured under the described conditions.

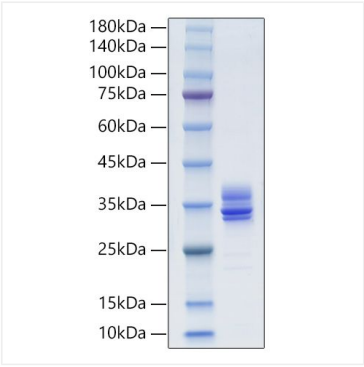
Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

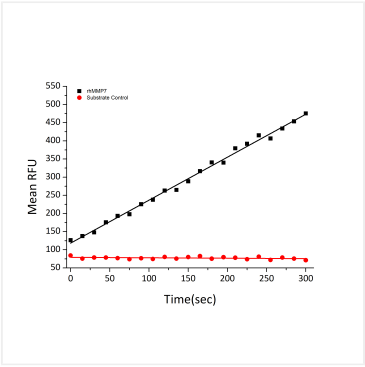
Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Human MMP-7 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human MMP-7 cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2 (RD,Catalog # ES001). The specific activity is >812 pmol/min/μg, as measured under the described conditions.