Recombinant Human MMP-7 Protein

Catalog No.: RP01928

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Sequence Information

Species
Human

Gene ID
4316

Swiss Prot
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
CHO Cells

Purification
≥ 92 % as determined by SDS-PAGE.

Calculated MW
30.52 kDa

Observed MW
30-40 kDa

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.

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.

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
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

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

Contact

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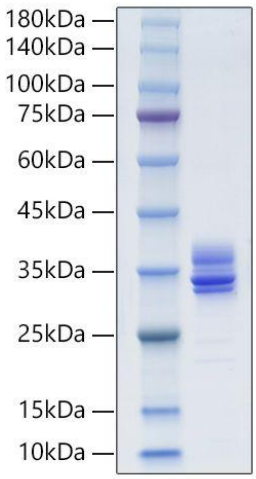
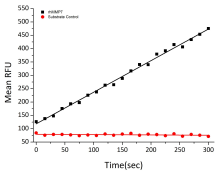
For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

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.