

RP00211

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Recombinant Human MMP-1 Protein

Catalog No.: RP00211

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	4312	P03956

Tags

C-His

Synonyms

MMP1;CLG;CLGN

Background

MMP1, also known as MMP-1, contains 4 hemopexin-like domains and is a member of the matrix metalloproteinase (MMP) family. Matrix metalloproteases, also called matrixins, are zinc-dependent endopeptidases that are the major proteases involved in ECM degradation. MMPs are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. MMP1 is expressed by fibroblasts, keratinocytes, endothelial cells, monocytes and macrophages. Mutations of MMP1 are associated with chronic obstructive pulmonary disease (COPD).

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Basic Information

Description

Recombinant Human MMP1 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Phe20-Asn469) of human MMP1 (Accession #NP_002412.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

1. Measured in a cell migration assay using A549 cells. 1 ng/mL of Recombinant Human MMP-1 can effectively induce A549 cells migration. 2. Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH₂. The specific activity is >997 pmol/min/μg.

Storage

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

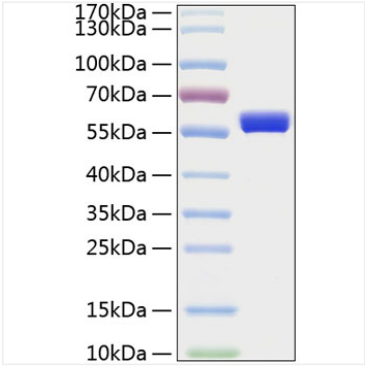
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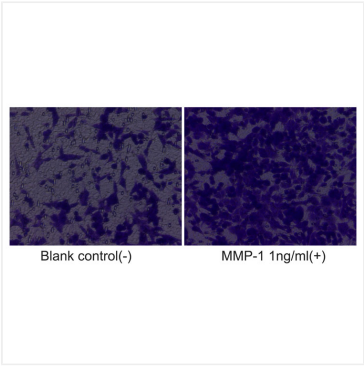
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* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Human MMP-1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human MMP-1 induces cell migration of the A549 cells. 1 ng/mL of Recombinant Human MMP-1 can effectively induce A549 cells migration.