

Recombinant Human MMP-1 Protein

Catalog No.: RP00211 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	4312	P03956

Tags

C-His

Synonyms

MMP1;CLG;CLGN

Product Information

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

Calculated MW	Observed MW
51.84 kDa	55-60 kDa

Endotoxin

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

Formulation

Lyophilized from a 0.22 μm filtered solution of 25mM MES□10mM CaCl₂□150mM NaCl□0.05% Brij□pH 5.5. 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.

Contact

☎	400-999-6126
✉	cn.market@abclonal.com.cn

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).

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.

Shipping

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

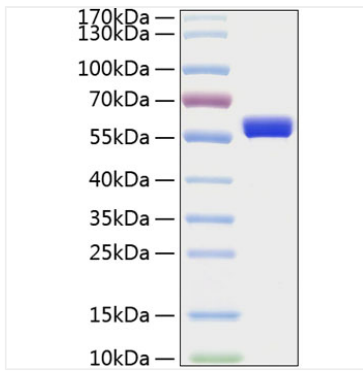
Storage

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.

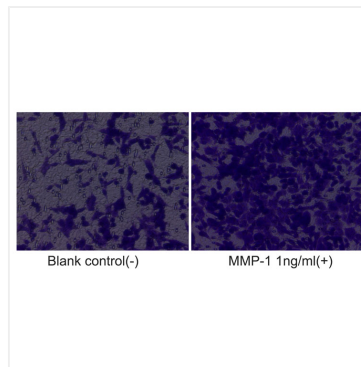
Operational Notes

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