

Recombinant Human MMP-9 Protein

Catalog No.: RP00103 Recombinant 3 Publications

Sequence Information

Species **Gene ID** **Swiss Prot**
 HEK293 cells 4318 P14780

Tags
 C-His

Synonyms
 MMP9;CLG4B;GELB;MANDP2;MMP-9

Background

Proteins of the matrix metalloproteinase (MMP) family 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. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling.

Product Information

Source **Purification**
 HEK293 cells $\geq 95\%$ as determined by SDS-PAGE.

Endotoxin
 < 0.1 EU/ μ g of the protein by LAL method.

Formulation
 Lyophilized from a 0.22 μ m 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 MMP-9 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala20-Asp707 (Q279R)) of human MMP-9/CLG4B (Accession #NP_004985.2) fused with a 6 \times 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-9 can effectively induce A549 cells migration. |2. Recombinant Human MMP-9 Protein cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2 (Catalog # ES001). The specific activity is >468 pmol/min/ μ g, 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°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.

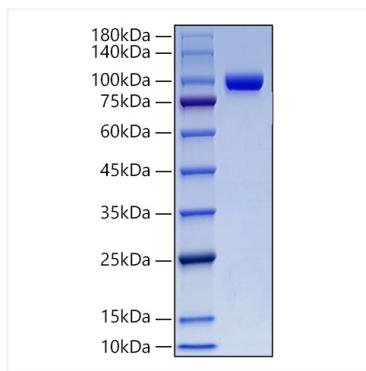
Avoid repeated freeze/thaw cycles.

Contact

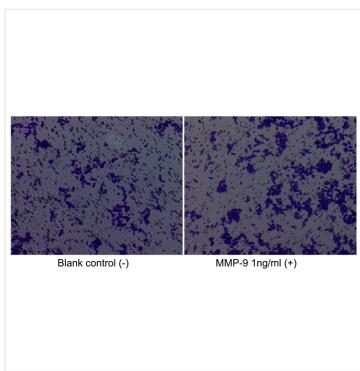


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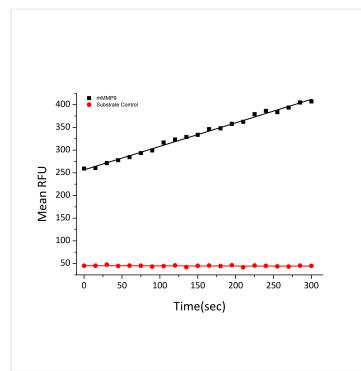
Validation Data



Recombinant Human MMP-9 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human MMP-9 induces cell migration of the A549 cells. 1 ng/mL of Recombinant Human MMP-9 can effectively induce A549 cells migration.



Recombinant Human MMP-9 Protein cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2 (Catalog # ES001). The specific activity is >468 pmol/min/μg, as measured under the described conditions.