# **Recombinant Human MMP-9 Protein**



Catalog No.: RP00103 Recombinant 1 Publications

# **Sequence Information**

**Species** Gene ID **Swiss Prot** Human 4318 P14780

**Tags** 

C-His

**Synonyms** 

MMP9;CLG4B;GELB;MANDP2;MMP-9

## **Product Information**

**Purification** HEK293 cells > 97% by SDS-

PAGE.

Calculated MW Observed MW

77.24 kDa 100 kDa

### **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 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**

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 remodelina.

# **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×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/µg, as measured under the described conditions.

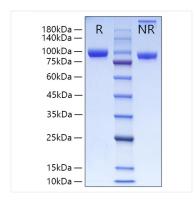
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

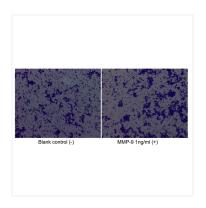
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

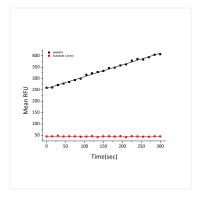
# **Validation Data**



Recombinant Human ISG15 Protein was resolved with SDS PAGE under reducing (R) and non-reducing (NR) conditions, showing single bands at 100 kDa and 200 kDa, respectively.



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/ $\mu$ g, as measured under the described conditions.