

Recombinant Human MMP-13 Protein

Catalog No.: RP00221 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	4322	P45452

Tags

C-His

Synonyms

CLG3; MANDP1; MDST;
MMP-13; MMP13; MANDP1; MDST; MMP-13

Product Information

Source	Purification
HEK293 cells	> 95% 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 freeze-thaw cycles.

Background

Matrix metalloproteinases are a family of zinc and calcium dependent endopeptidases. MMP-13 (Collagenase-3) has been demonstrated to degrade a range of extracellular matrix proteins, including collagen types I, II, III, IV, IX, X and XIV, gelatin, aggrecan, perlecan and fibronectin. MMP-13 is proteolytically processed to generate the mature protease. MMP-13 is distinguished from the other human collagenases, it cleaves type II collagen more efficiently than types I and III. MMP-13 is expressed by fibroblasts, chondrocytes and squamous epithelial cells. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis.

Basic Information

Description

Recombinant Human MMP-13 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu20-Cys471) of human MMP-13 (Accession #NP_002418.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

Measured in a cell migration assay using A549 cells. 10 ng/mL of Recombinant Human MMP-13 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 >2900 pmol/min/μg.

Storage

Store the lyophilized protein at -20°C to -80 °C for long term.

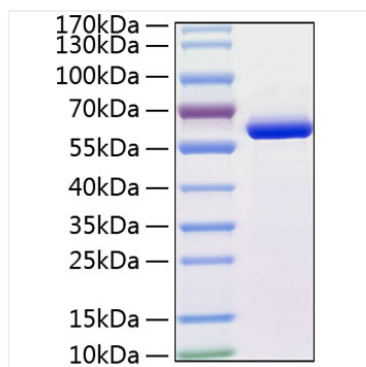
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

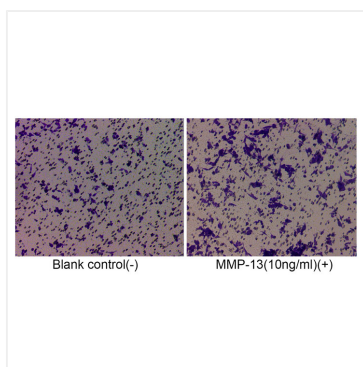
Contact

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Validation Data



Recombinant Human MMP-13 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 58 kDa.



Recombinant Human MMP-13 induces cell migration of the A549 cells. 10 ng/mL of Recombinant Human MMP-13 can effectively induce A549 cells migration.