Recombinant Human MMP-13 Protein

Catalog No.: RP00221

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Sequence Information

Species
Human

Gene ID
4322

Swiss Prot
P45452

Tags
C-His

Synonyms
CLG3, MANDP1, MDST, MMP-13, MMP13,MANDP1,MDST,MMP-13

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
52.52 kDa

Observed MW
55-70 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.

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, chrondrocytes 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.

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.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

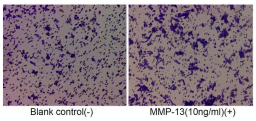
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

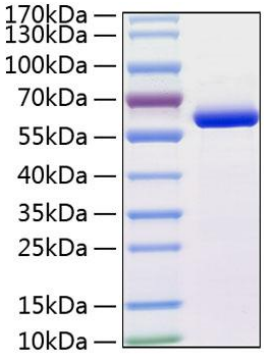
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Validation Data



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.



Recombinant Human MMP-13 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.