

Recombinant Human MMP-10 Protein

Catalog No.: RP01969

Sequence Information

Species Gene ID

Human 4319

Swiss Prot Tags

P09238 C-6His

Synonyms

MMP10, STMY2, Stromelysin-2, SL-2, EC:3.4.24.22, Matrix metalloproteinase-10, MMP-10, Transin-2

Product Information

Source Purification

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

Calculated MWObserved MW

53.1 KDa 45-60,60-65 kDa

Endotoxin

< 0.01 EU/μg of the protein by LAL method

Formulation

Lyophilized from a 0.2 μm filtered solution of 150 mM NaCl, 5 mM CaCl₂, 50 mM Tris, pH 7.5.

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.

Background

Matrix metalloproteinases are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-10 degrades a broad range of substrates including gelatin, collagen types III, IV and V, fibronectin, aggrecan, and pig cartilage proteoglycan. MMP-10 can activate other MMPs such as MMP-1 and MMP-8. MMP-10 is expressed in keratinocytes, T cells, menstrual endometrium and a few tumor samples. Structurally, MMP-10 may be divided into four distinct domains: a pro-domain which is cleaved upon activation, a catalytic domain containing the zinc binding site; a short linker region, and a carboxyl terminal hemopexin-like domain.

Basic Information

Description

Recombinant Human MMP-10 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Tyr18-Cys476) of Human MMP-10 (Accession #NP_002416.1) fused with His at the C-terminus.

Activity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂ (Catalog # ES002). The specific activity is >457 pmol/min/μg, as measured under the described conditions.

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°C

Operational Notes

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

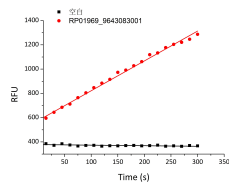
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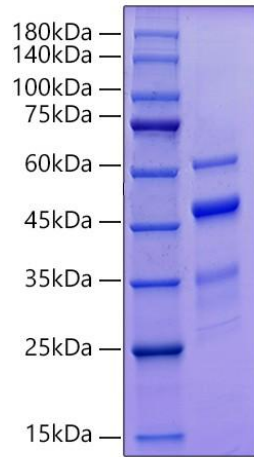
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Validation Data



Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂ (Catalog # ES002). The specific activity is >457 pmol/min/μg, as measured under the described conditions.



Recombinant Human MMP-10 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.