Human MMP-9 Protein, His Tag (active enzyme) (MALS verified)

Catalog # MM9-H5229

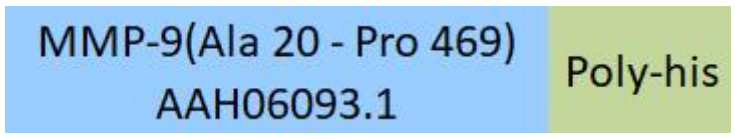
Synonym

MMP9,CLG4B,GELB,MANDP2,Gelatinase B

Source

Human MMP-9, His Tag (MM9-H5229) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Pro 469 (Accession # AAH06093.1). It needs to be activated by agents such as APMA in vitro to have hydrolytic activity.
Predicted N-terminus: Ala 20

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 50.8 kDa. The protein migrates as 65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Supplied as 0.2 μm filtered solution in 25 mM Tris, 150 mM NaCl, 20% glycerol, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

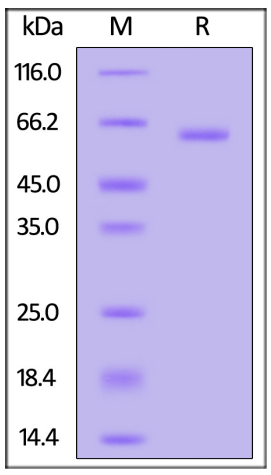
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

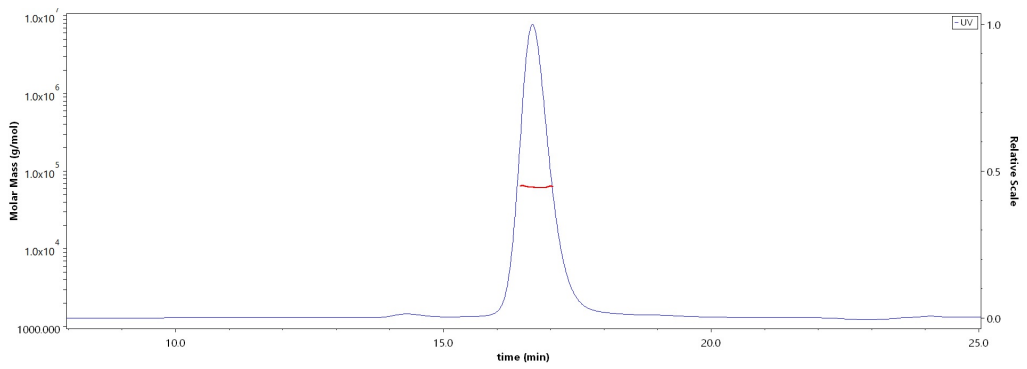
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Human MMP-9, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Human MMP-9, His Tag (Cat. No. MM9-H5229) is more than 90% and the molecular weight of this protein is around 50-70 kDa verified by SEC-MALS.
Report

Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH2. The specific activity is >3,000 pmol/min/μg (QC tested).

Background

Human MMP-9 Protein, His Tag (active enzyme) (MALS verified)

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Matrix metallopeptidase 9 (MMP-9) is also known as 92 kDa type IV collagenase, 92 kDa gelatinase or gelatinase B (GELB), CLG4B, is secreted from neutrophils, macrophages, and a number of transformed cells, and is the most complex family member in terms of domain structure and regulation of its activity. . Structurally, MMP9 maybe be divided into five distinct domains: a prodomain which is cleaved upon activation, a gelatinbinding domain consisting of three contiguous fibronectin type II units, a catalytic domain containing the zinc binding site, a prolinerich linker region, and a carboxyl terminal hemopexinlike domain. This enzyme degrades various substrates including gelatin, collagen types IV and V, and elastin. MMP9 is involved in a variety of autoimmune diseases such as systemic lupus erythematosus, rheumatoid arthritis, and multiple sclerosis, and be regarded as a potential therapeutic target.