



## 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

MMP-9(Ala 20 - Pro 469)	Poly-his
AAH06093.1	

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  $\mu$ g by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

## Formulation

Supplied as 0.2  $\mu$ m 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.*

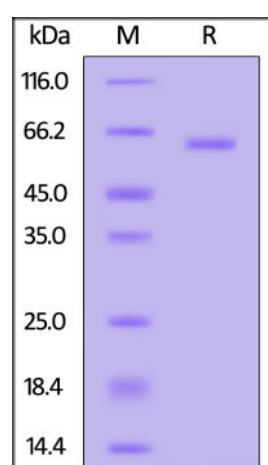
## Storage

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

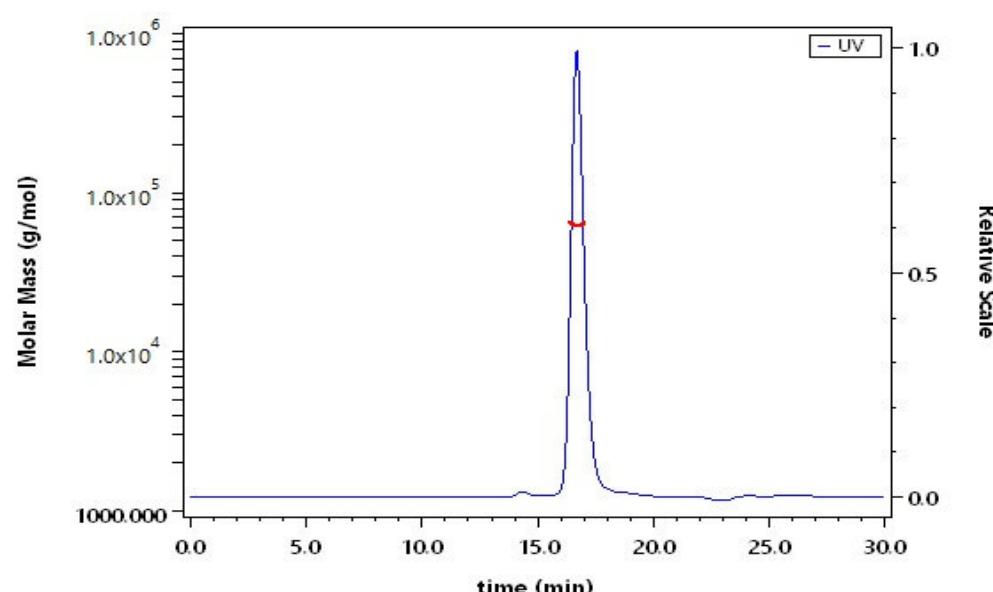
- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

## 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/ $\mu$ g (QC tested).

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## Background

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.

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