Catalog # MM9-C52H3

#### Synonym

MMP9,CLG4B,GELB,MANDP2,Gelatinase B

## Source

Cynomolgus MMP-9 Protein, His Tag (MM9-C52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Pro 469 (Accession # <u>XP\_005569271.2</u>). 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) XP\_005569271.2 Poly-his

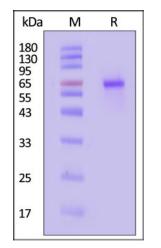
This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 51.8 kDa. The protein migrates as 65 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

# Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

# **SDS-PAGE**



Cynomolgus MMP-9 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is  $>1500 \text{ pmol/min/}\mu\text{g}$  (QC tested).

# Purity

>90% as determined by SDS-PAGE.

## Formulation

Supplied as 0.2  $\mu$ m filtered solution in 25 mM Tris, 150 mM NaCl, pH7.5 with glycerol 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.



## 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,



# Cynomolgus MMP-9 Protein, His Tag (active enzyme)



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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.

#### **Clinical and Translational Updates**

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.



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