

Human MMP-8 Protein (active form), Ultra Low Endotoxin

Cat. No. MMP-HM108-UL

Description

Source	Recombinant Human MMP-8 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Phe21-Gly467.
Accession	P22894
Molecular Weight	The protein has a predicted MW of 52.2 kDa. Due to glycosylation, the protein migrates to 65-70 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

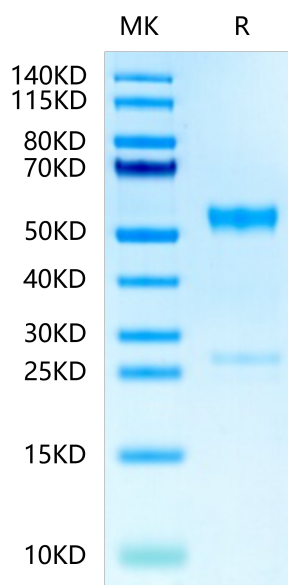
Formulation	Lyophilized from 0.22µm filtered solution in 50mM Tris, 10mM CaCl ₂ , 150mM NaCl (pH 7.5). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Alteration of matrix metalloproteinases (MMPs) and tissue inhibitors of metalloproteinases (TIMPs) expression has been studied for various cardiac diseases, including dilated cardiomyopathy (DCM), with the significance of surrogate markers of extracellular matrix (ECM) remodeling. MMP-8 was identified only in myocardiocytes, while MMP-9 and TIMP-2 were present in both myocardiocytes and stroma, but with different intensity. The increasing intensity of MMP-8 and TIMP-2 immunoreactions was significantly associated with low HCS.

Assay Data

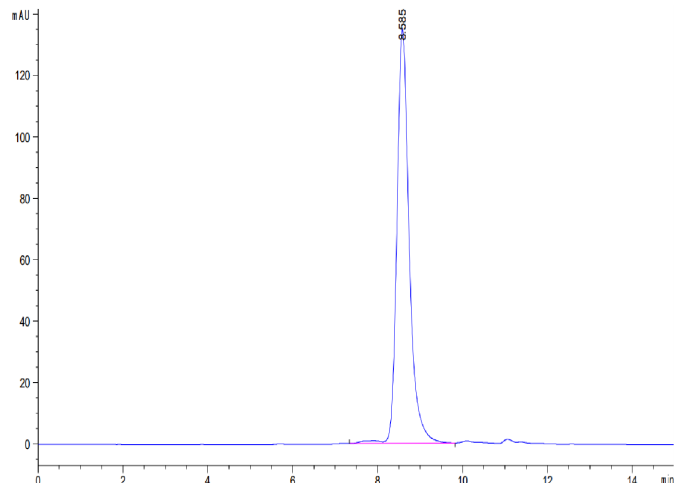
Bis-Tris PAGE



Human MMP-8 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

Assay Data

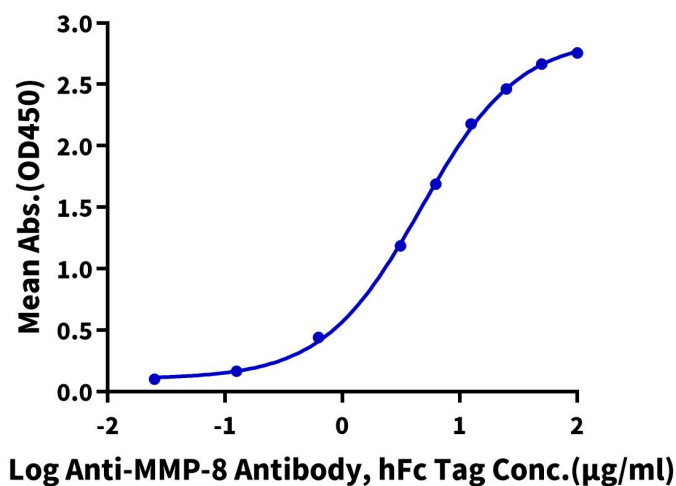


The purity of Human MMP-8 is greater than 95% as determined by SEC-HPLC.

ELISA Data

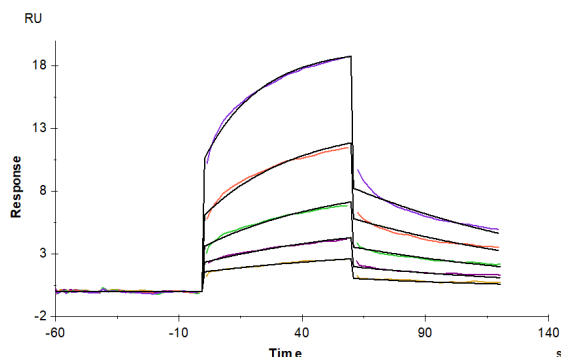
Human MMP-8, His Tag ELISA

0.5µg Human MMP-8, His Tag Per Well



Immobilized Human MMP-8, His Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Anti-MMP-8 Antibody, hFc Tag with the EC50 of 4.66µg/ml determined by ELISA (QC Test).

SPR Data



Anti-MMP-8 Antibody captured on CM5 Chip via Protein A can bind Human MMP-8, His Tag with an affinity constant of 1.14 µM as determined in SPR assay (Biacore T200).

Bioactivity Data

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is > 300 pmoles/min/µg (QC Test).