

## MMP-8 Protein, Human, Recombinant (His)

### General Information

Synonyms:	MMP-8;HNC;matrix metalloproteinase 8;CLG1;PMNL-CL
Protein Construction:	A DNA sequence encoding the human MMP8 (NP_002415.1) (Met 1-Gly 467) was expressed, fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Phe 21
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P22894
Molecular Weight:	52.6 kDa (predicted); 65-75 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH <sub>2</sub> . The specific activity is > 250 pmoles/min/μg. (Activation description: The proenzyme needs to be activated by APMA for an activated form)
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 50 mM Tris, 10 mM CaCl <sub>2</sub> , 150 mM NaCl, pH 7.5. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Matrix metalloproteinases (MMPs) are a family of zinc-dependent endopeptidases that degrade components of the extracellular matrix (ECM) and play essential roles in various physiological processes such as morphogenesis, differentiation, angiogenesis, and tissue remodeling, as well as pathological processes including inflammation, arthritis, cardiovascular diseases, pulmonary diseases, and tumor invasion. Neutrophil collagenase, also known

as Matrix metalloproteinase-8, MMP-8, and CLG1, is a member of the peptidase M1A family. MMP-8 may affect the metastatic behavior of breast cancer cells through protection against lymph node metastasis, underlining the importance of anti-target identification in drug development. MMP-8 in the tumor may have a protective effect against lymph node metastasis. MMP-8 may affect the metastatic behavior of breast cancer cells through protection against lymph node metastasis, underlining the importance of anti-target identification in drug development. MMP-8 participates in wound repair by contributing to the resolution of inflammation and open the possibility to develop new strategies for treating wound healing defects.

### Reference

Hasty K.A., et al.,(1990), Human neutrophil collagenase. A distinct gene product with homology to other matrix metalloproteinases. J. Biol. Chem. 265:11421-11424.  
Blaeser J., et al., (1991), Mercurial activation of human polymorphonuclear leucocyte procollagenase.Eur. J. Biochem. 202:1223-1230.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481