

# Recombinant Human MMP1 Protein (His Tag)

Catalog Number:PKSH032740



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

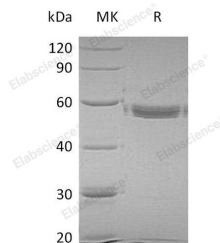
## Description

<b>Synonyms</b>	Interstitial Collagenase;Fibroblast Collagenase;Matrix Metalloproteinase-1;MMP-1;MMP1;CLG
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Phe20-Asn469
<b>Accession</b>	P03956
<b>Calculated Molecular Weight</b>	52.9 kDa
<b>Observed molecular weight</b>	56 kDa
<b>Tag</b>	C-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20mM MES, 150mM NaCl, 2mM CaCl <sub>2</sub> , 1mM DTT, 0.05%Brij35, 10% Glycerol, pH 5.0.
<b>Reconstitution</b>	Not Applicable

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

Matrix Metalloproteinase-1 (MMP-1) is expressed by fibroblasts, keratinocytes, endothelial cells, monocytes and macrophages. MMP1 contains several distinct domains: a prodomain that is cleaved upon activation, a catalytic domain containing the zinc binding site, a short hinge region, and a carboxyl terminal (hemopexin like) domain. MMP-1 can degrade a broad range of substrates including types I, II, III, VII, VIII, and X collagens as well as casein, gelatin,  $\alpha$ 1 antitrypsin, myelin basic protein, L-Selectin, pro-TNF, IL1, IGFBP3, IGFBP5, pro-MMP2, and pro-MMP9. A significant role of MMP1 is the degradation of fibrillar collagens in extracellular matrix remodeling, characterized by the cleavage of the interstitial collagen triple helix into 3/4, 1/4 fragments. MMP1 may also be involved in enzyme cascades, cytokine regulation and cell surface molecule modulation.

## For Research Use Only

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Toll-free: 1-888-852-8623

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Fax: 1-832-243-6017