

Recombinant Human Matrix Metalloproteinase 1, Hemopexin-like Domain

Cat. No. MMP1-149H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Hemopexin-Like Domain of MMP1 (Interstitial collagenase, matrix metalloproteinase 1), cloned from human cDNA, was expressed in <i>E. coli</i> . The protein consists of the hemopexin-like domain of human MMP-1 (residues 274-470, swissprot accession P03956). MW = 23.2 kDa.
Species	Human
Source	E.coli
ProteinLength	274-470 a.a.
Description	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP"s are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes a secreted enzyme which breaks down the interstitial collagens, types I, II, and III. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. In addition, mechanical force may increase the expression of MMP1 in human periodontal ligament cells.
Purity	> 95% by SDS-PAGE. The protein was observed as a single band migrating at a molecular weight between 20 and 30 kDa.

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Supplied As	solution in 50mM Tris pH 7.2, 300mM NaCl, 0.1mM ZnCl ₂ , 20mM CaCl ₂ . The concentration is calculated from the absorbance at 280nm (e ₂₈₀ = 41495 M ⁻¹ cm ⁻¹).
Storage	Under the above described conditions, the product has been concentrated up to 200μM without observing precipitation.
GENE INFORMATION	
Gene Name	MMP1 matrix metalloproteinase 1 (interstitial collagenase) [Homo sapiens]
Synonyms	MMP1; matrix metalloproteinase 1 (interstitial collagenase); CLG; CLGN; matrix metalloproteinase 1; fibroblast collagenase; matrix metalloproteinase 1; EC 3.4.24.7; Interstitial collagenase; Matrix metalloproteinase-1; MMP-1; Fibroblast collagenase; 22 kDa interstitial collagenase; 27 kDa interstitial collagenase
Gene ID	4312
mRNA Refseq	NM_001145938
Protein Refseq	NP_001139410
MIM	120353
UniProt ID	P03956
Chromosome Location	11q21-q22
Pathway	Bladder cancer; PPAR signaling pathway; Pathways in cancer; Diabetes pathways; Hemostasis; Signaling in Immune system

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Function

calcium ion binding; metalloendopeptidase activity; peptidase activity; zinc ion binding

PDB rendering based
on 1ayk.



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