

Recombinant Human MMP12, His-tagged

Cat. No. MMP12-28717TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant fragment: MKFLLILLLQ ATASGALPLN SSTSLEKNNV LFG, corresponding to amino acids 1-33 of Human MMP12, fused at the N terminal to a His tag, 8kDa.

Species Human

Source E.coli

ProteinLength 1-33 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 MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. It is thought that the protein encoded by this gene is cleaved at both ends to yield the active enzyme, but this processing has not been fully described. The enzyme degrades soluble and insoluble elastin. It may play a role in aneurysm formation and studies in mice suggest a role in the development of emphysema. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3.

Conjugation HIS

Tissue specificity Found in alveolar macrophages but not in peripheral blood monocytes.

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Form	Liquid
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Sequences of amino acids	MKFLILLLLQATASGALPLNSSTSLEKNNVLFQ
Sequence Similarities	Belongs to the peptidase M10A family. Contains 4 hemopexin-like domains.

GENE INFORMATION

Gene Name	MMP12 matrix metalloproteinase 12 (macrophage elastase) [Homo sapiens]
Official Symbol	MMP12
Synonyms	MMP12; matrix metalloproteinase 12 (macrophage elastase); matrix metalloproteinase 12 (macrophage elastase); macrophage metalloelastase; HME;
Gene ID	4321
mRNA Refseq	NM_002426
Protein Refseq	NP_002417
MIM	601046
Uniprot ID	P39900
Chromosome Location	11q22.3

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Pathway

Matrix Metalloproteinases, organism-specific biosystem;

Function

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

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