Active Recombinant Human MMP12 Protein

Cat. No. MMP12-1134H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MMP12 Protein (Leu17-Cys470) with Val97Leu substitution was expressed in mouse myeloma cell line, NS0-derived.
Species	Human
Source	Mouse myeloma cell
ProteinLength	17-470 a.a.
Description	This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this 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. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease degrades soluble and insoluble elastin. This gene may play a role in aneurysm formation and mutations in this gene are associated with lung function and chronic obstructive pulmonary disease (COPD). This gene is part of a cluster of MMP genes on chromosome 11.
Form	Pro form
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH2. The specific activity is >500 pmol/min/μg, as measured under the described conditions.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Molecular Mass	52 kDa
N-terminal Sequence Analysis	Leu17
Endotoxin	< 0.10 EU/μg of the protein by the LAL method.
Purity	> 95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution in MES, NaCl, CaCl2, CHAPS, ZnSO4 and PEG.
Reconstitution	Reconstitute at 0.25 mg/mL in 10 mM MES, 0.1 M NaCl, 100 μM CaCl2, 0.1% CHAPS, 1 μM ZnSO4 and 0.1% PEG., pH 6.0.
Shipping	The product is shipped with polar packs.

GENE INFORMATION

Gene Name	MMP12 matrix metallopeptidase 12 [Homo sapiens (human)]
Official Symbol	MMP12
Synonyms	MMP12; matrix metallopeptidase 12; macrophage metalloelastase; matrix metallopeptidase 12 (macrophage elastase); matrix metalloproteinase 12 (macrophage elastase); EC 3.4.24.65

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Gene ID	4321
mRNA Refseq	NM_002426
Protein Refseq	NP_002417
MIM	601046
UniProt ID	P39900

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