Active Recombinant Human MMP1

Cat. No. MMP1-1713H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MMP-1 is a 42.7 kDa protein containing the entire catalytic N-terminal domain and the C-terminal domain which is involved in substrate specificity and in binding TIMP-1.
Species	Human
Source	E.coli
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. Alternative splicing results in multiple transcript variants.
Bio-activity	MMP-1 activity was measured by its ability to cleave a chromogenic peptide MMP-1 substrate at room temperature. At an MMP-1 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 25 minutes
Molecular Mass	42.7 kDa
AA Sequence	MFVLTEGNPR WEQTHLTYRI ENYTPDLPRA DVDHAIEKAF QLWSNVTPLT FTKVSEGQAD IMISFVRGDH RDNSPFDGPG GNLAHAFQPG PGIGGDAHFD

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	EDERWTNNFR EYNLHRVAAH ELGHSLGLSH STDIGALMYP SYTFSGDVQL AQDDIDGIQA IYGRSQNPVQ PIGPQTPKAC DSKLTFDAIT TIRGEVMFFK DRFYMRTNPF YPEVELNFIS VFWPQLPNGL EAAYEFADRD EVRFFKGNKY WAVQGQNVLH GYPKDIYSSF GFPRTVKHID AALSEENTGK TYFFVANKYW RYDEYKRSMD PGYPKMIAHD FPGIGHKVDA VFMKDGFFYF FHGTRQYKFD PKTKRILTLQ KANSWFNCRK N
Purity	Greater than 90% by SDS-PAGE gel and HPLC analyses.

GENE INFORMATION

Gene Name	MMP1 matrix metallopeptidase 1 (interstitial collagenase) [Homo sapiens(human)]
Official Symbol	MMP1
Synonyms	MMP1; CLG; CLGN; matrix metallopeptidase 1 (interstitial collagenase); interstitial collagenase; fibroblast collagenase; matrix metalloprotease 1; matrix metalloproteinase 1; EC 3.4.24.7
Gene ID	4312
mRNA Refseq	NM_002421
Protein Refseq	NP_002412
MIM	4312
UniProt ID	P03956
Chromosome Location	11q22.3

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Pathway	Activation of Matrix Metalloproteinases; Basigin interactions; Bladder cancer
Function	calcium ion binding; metalloendopeptidase activity; zinc ion binding

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