

Recombinant Human matrix metalloproteinase 13 (collagenase 3), His-tagged

Cat. No. MMP13-443H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	MMP13, 104- 471aa, Human, His tag, E.coli
Species	Human
Source	E.coli
Description	MMP13 of the matrix metalloproteinase (MMP) family is 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. The protein encoded by this gene cleaves type II collagen more efficiently than types I and III. It may be involved in articular cartilage turnover and cartilage pathophysiology associated with osteoarthritis. Recombinant human MMP13 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.15M NaCl, 1mM DTT
Molecular Mass	44.7 kDa (391aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSYNVFPRT LKWSKMNLTY RIVNYTPDMT HSEVEKAFKK AFKVWSDVTP LNFTRLHDGI ADIMISFGIK EHGDFYPFDG

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PSGLLAHAFP PGPNYGGDAH FDDDETWTSS SKGYNLFLVA AHEFGHSLGL
 DHSKDPGALM FPIYTYTGKS HFMLPDDDVQ GIQSLYGPGD EDPNPKHPKT
 PDKCDPSLSL DAITSRGET MIFKDRFFWR LHPQQVDAEL FLTKSFWPEL
 PNRIDAAYEH PSHDLIFIR GRKFWALNGY DILEGYPKKI SELGLPKEVK
 KISAAVHFED TGKTLLFSGN QVWRYDDTNH IMDKDYPRLI EEDFPGIGDK
 VDAVYEKNGY IYFFNGPIQF EYSIWSNRIV RVMPANSILW C

Purity >90% by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 0.5mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [MMP13 matrix metalloproteinase 13 \(collagenase 3\) \[Homo sapiens \]](#)

Official Symbol MMP13

Synonyms MMP13; matrix metalloproteinase 13 (collagenase 3); matrix metalloproteinase 13 (collagenase 3); collagenase 3; CLG3; MMP-13; MANDP1;

Gene ID [4322](#)

mRNA Refseq [NM_002427](#)

Protein Refseq [NP_002418](#)

MIM [600108](#)

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UniProt ID	P45452
Chromosome Location	11q22.3
Pathway	Activation of Matrix Metalloproteinases, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Endochondral Ossification, organism-specific biosystem; Extracellular matrix organization, organism-specific biosystem; Matrix Metalloproteinases, organism-specific biosystem;
Function	calcium ion binding; calcium-dependent protein binding; fibronectin binding; low-density lipoprotein particle receptor binding; metalloendopeptidase activity; peptidase activity; zinc ion binding;

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