

Recombinant human MMP-13 protein

Catalog Number: ATGP2540

PRODUCT INFORMATION

Expression system

E.coli

Domain

104-471aa

UniProt No.

P45452

NCBI Accession No.

NP_002418.1

Alternative Names

collagenase 3 preproprotein, collagenase 3 preproprotein, CLG3, MANDP1

PRODUCT SPECIFICATION

Molecular Weight

44.7 kDa (391aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 0.15M NaCl, 1mM DTT

Purity

> 85% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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-

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terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH MGS>YNVFPRT LKWSKMNLTY RIVNYTPDMT HSEVEKAFKK AFKVWSDVTP
LNFTRLHDGI ADIMISFGIK EHGDFYFPDG PSGLLAHAFP PGPNYGGDAH FDDDETWTSS SKGYNLFLVA AHEFGHSLGL
DHSKDPGALM FPIYTYTGKS HFMLPDDDDVQ GIQSLYGGPD EDPNPKHPKT PDKCDPSLSL DAITSRGET MIFKDRFFWR
LHPQQVDAEL FLTksfwPEL PNRIDAAYEH PSHDLIFIFR GRKFWALNGY DILEGYPKKI SELGLPKEVK KISA AVHFED
TGKTLFSGN QVWRYDDTNH IMDKDYPRLI EEDFPGIGDK VDAVYEKNGY IYFFNGPIQF EYSIWSNRIV RVMPANSILW C

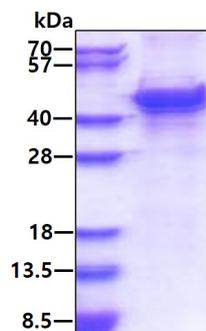
General References

Gomis-Rueth F.-X., et al (1996). *J. Mol. Biol.* 264:556-566

Lausch E., et al (2009). *Am. J. Hum. Genet.* 85:168-178

DATA

SDS-PAGE



3 μ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.