## **PRODUCT INFORMATION**

Expression system E.coli

**Domain** 110-660aa

**UniProt No.** P08253

NCBI Accession No. NP\_004521

Alternative Names

Matrix metallopeptidase 2, Matrix metallopeptidase 2, CLG4, CLG4A, MMP-II, MONA, TBE-1

# **PRODUCT SPECIFICATION**

Molecular Weight 64.7 kDa (576aa)

**Concentration** 0.25mg/ml (determined by Bradford assay)

### Formulation

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

### Purity

> 95% 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

MMP2 protein 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. MMP2 is an enzyme which degrades type IV collagen, the major structural component of basement membranes. It plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. Recombinant human MMP2 protein, fused to His-



tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques

## **Amino acid Sequence**

MGSSHHHHHH SSGLVPRGSH MGSEFYNFFP RKPKWDKNQI TYRIIGYTPD LDPETVDDAF ARAFQVWSDV TPLRFSRIHD GEADIMINFG RWEHGDGYPF DGKDGLLAHA FAPGTGVGGD SHFDDDELWT LGEGQVVRVK YGNADGEYCK FPFLFNGKEY NSCTDTGRSD GFLWCSTTYN FEKDGKYGFC PHEALFTMGG NAEGQPCKFP FRFQGTSYDS CTTEGRTDGY RWCGTTEDYD RDKKYGFCPE TAMSTVGGNS EGAPCVFPFT FLGNKYESCT SAGRSDGKMW CATTANYDDD RKWGFCPDQG YSLFLVAAHE FGHAMGLEHS QDPGALMAPI YTYTKNFRLS QDDIKGIQEL YGASPDIDLG TGPTPTLGPV TPEICKQDIV FDGIAQIRGE IFFFKDRFIW RTVTPRDKPM GPLLVATFWP ELPEKIDAVY EAPQEEKAVF FAGNEYWIYS ASTLERGYPK PLTSLGLPPD VQRVDAAFNW SKNKKTYIFA GDKFWRYNEV KKKMDPGFPK LIADAWNAIP DNLDAVVDLQ GGGHSYFFKG AYYLKLENQS LKSVKFGSIK SDWLGC

## **General References**

Kwan J.A., et al. (2004) FASEB J. 18:690-692

# SDS-PAGE (kDa) 30g by SDS-PAGE under reducing condition and visualized by coomassie blue stain. 18 13.5 8.5 15% SDS-PAGE (3ug)