

Recombinant mouse MMP-9 protein

Catalog Number: ATGP4087

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

20-730aa

UniProt No.

P41245

NCBI Accession No.

NP_038627.1

Alternative Names

Matrix metalloproteinase-9, 92 kDa gelatinase, 92 kDa type IV collagenase, Gelatinase B, GELB, Mmp9, MANDP2, AW743869, B/MMP, B/MMP9, Clg4, Clg4b, Gel B, MMP-9, pro-MMP-9

PRODUCT SPECIFICATION

Molecular Weight

79.3kDa (717aa)

Concentration

0.25mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In 20mM Tris-HCl (pH 7.5) containing 10mM CaCl₂, 100mM NaCl, 0.05% Brij35, 10% glycerol

Purity

> 85% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity is > 500 pmol/min/ug, and is defined as the amount of enzyme that cleaves 1pmol of Mca-PLGL-Dpa-AR-NH₂ per minute at pH 7.5 at 25C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

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.

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BACKGROUND

Description

MMP-9, also known matrix metalloproteinase-9, is one of the matrix metalloproteinases superfamily which is zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. It degrades many substrates such as gelatin, collagens, elastin and proteoglycan core protein which appears to be involved in invasive ability. This protein also plays an essential role in leukocyte migration and in bone osteoclastic resorption. It plays an important role in angiogenesis and neovascularization and so appears to be involved in the remodeling associated with malignant glioma neovascularization. Recombinant mouse MMP-9 protein, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

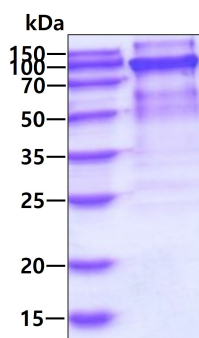
APYQRQPTFV VFPKDLKTSN LTDTQLAEAY LYRYGYTRAA QMMGEKQSLR PALLMLQKQL SLPQTGELDS QTLKAIRTPR
 CGVPDVGRFQ TFKGLKWDHH NITYWIQNYS EDLPRDMIDD AFARAFVWG EVAPLTFTRV YGPEADIVIQ FGVAEHGDGY
 PFDGKDGLLA HAFPPGAGVQ GDAHFDDEL WSLGKGVVIP TTYGNSNGAP CHFPTFEGR SYSACTTDGR NDGTPWCSTT
 ADYDKDGKFG FCPSELYTE HGNGEGKPCV PPFIFEGRSY SACTTKGRSD GYRWCATTAN YDQDKLYGFC PTRVDATVVG
 GNSAGELCVF PFVFLGKQYS SCTSDGRRDG RLWCATTSNF DTDKKWGFPC DQGYSLFLVA AHEFGHALGL DHSSVPEALM
 YPLYSYLEGF PLNKDDIDGI QYLYGRGSKP DPRPPATTTT EPQPTAPPTM CPTIPPTAYP TVGPTVGPTG APSPGPTSSP
 SPGPTGAPSP GPTAPPTAGS SEASTESLSP ADNPCNVDVF DAIAEIQAL HFFKDGWYWK FLNHRGSPLQ GPFLTARTWP
 ALPATLDSAF EDPQTKRVFF FSGRQMWWYT GKTVLGPRSL DKLGLGPEVT HVSGLLPRRL GKALLFSKGR VWRFDLKSQK
 VDPQSVIRVD KEFSGVPWNS HDIFQYQDKA YFCHGKFFWR VSFQNEVNKV DHEVNQVDDV GYVTDLLQC P<HHHHHH>

General References

Lee YD., et al, (2014) BMB Rep. 47:262-267.
 Matin S., et al, (2018) Int J Chron Obstruct Pulmon Dis. 13:1449-1454.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain