

MMP-9 Protein, Human (HEK293)

Cat. No.:	HY-P73300
Synonyms:	Matrix metalloproteinase-9; MMP-9; Gelatinase B; GELB; CLG4B
Species:	Human
Source:	HEK293
Accession:	NP_004985.2 (A20-D707)
Gene ID:	4318
Molecular Weight:	76-95 kDa

PROPERTIES

AA Sequence

```

A P R Q R Q S T L V   L F P G D L R T N L   T D R Q L A E E Y L   Y R Y G Y T R V A E
M R G E S K S L G P   A L L L L Q K Q L S   L P E T G E L D S A   T L K A M R T P R C
G V P D L G R F Q T   F E G D L K W H H H   N I T Y W I Q N Y S   E D L P R A V I D D
A F A R A F A L W S   A V T P L T F T R V   Y S R D A D I V I Q   F G V A E H G D G Y
P F D G K D G L L A   H A F P P G P G I Q   G D A H F D D D E L   W S L G K G V V V P
T R F G N A D G A A   C H F P F I F E G R   S Y S A C T T D G R   S D G L P W C S T T
A N Y D T D D R F G   F C P S E R L Y T Q   D G N A D G K P C Q   F P F I F Q G Q S Y
S A C T T D G R S D   G Y R W C A T T A N   Y D R D K L F G F C   P T R A D S T V M G
G N S A G E L C V F   P F T F L G K E Y S   T C T S E G R G D G   R L W C A T T S N F
D S D K K W G F C P   D Q G Y S L F L V A   A H E F G H A L G L   D H S S V P E A L M
Y P M Y R F T E G P   P L H K D D V N G I   R H L Y G P R P E P   E P R P P T T T T P
Q P T A P P T V C P   T G P P T V H P S E   R P T A G P T G P P   S A G P T G P P T A
G P S T A T T V P L   S P V D D A C N V N   I F D A I A E I G N   Q L Y L F K D G K Y
W R F S E G R G S R   P Q G P F L I A D K   W P A L P R K L D S   V F E E R L S K K L
F F F S G R Q V W V   Y T G A S V L G P R   R L D K L G L G A D   V A Q V T G A L R S
G R G K M L L F S G   R R L W R F D V K A   Q M V D P R S A S E   V D R M F P G V P L
D T H D V F Q Y R E   K A Y F C Q D R F Y   W R V S S R S E L N   Q V D Q V G Y V T Y
D I L Q C P E D

```

Biological Activity Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH₂ and the specific activity is >600 pmoles/min/μg. (Activation description: The proenzyme needs to be activated by APMA for an activated form)

Appearance Lyophilized powder

Formulation Lyophilized from a 0.2 μm filtered solution of 50 mM Tris, 0.15M NaCl, 0.01M CaCl₂, 0.05% Brij-35, pH 7.5 or 50 mM Tris, 150 mM NaCl, pH 7.5.

Endotoxin Level <1 EU/μg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

MMP-9, a member of the matrix metalloproteinase (MMP) family, plays a crucial role in modulating the extracellular matrix during various physiological processes, including embryonic development, reproduction, and tissue remodeling. These proteins are pivotal in both normal and pathological conditions, such as arthritis and metastasis. Typically secreted as inactive proproteins, MMPs are activated through cleavage by extracellular proteinases. The enzyme encoded by the MMP-9 gene specifically targets type IV and V collagens. Research in rhesus monkeys suggests its involvement in IL-8-induced mobilization of hematopoietic progenitor cells from the bone marrow, while murine studies propose a role in tumor-associated tissue remodeling. With biased expression observed in bone marrow (RPKM 144.9), lymph node (RPKM 49.8), and other tissues, MMP-9 emerges as a key player in the dynamic regulation of tissue architecture and cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA