

MMP-2 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P73810
Synonyms:	72 kDa Type IV Collagenase; Gelatinase A; MMP-2; TBE-1; CLG4A
Species:	Mouse
Source:	HEK293
Accession:	P33434 (M409-C662)
Gene ID:	17390
Molecular Weight:	Approximately 34.54 kDa

PROPERTIES

AA Sequence	<p>M G L E H S Q D P G</p> <p>A L M A P I Y T Y T K N F R L S H D D I K G I Q E L Y G P S P</p> <p>D A D T D T G T G P T P T L G P V T P E I C K Q D I V F D G I A Q I R G E I F F</p> <p>F K D R F I W R T V T P R D K P T G P L L V A T F W P E L P E K I D A V Y E A P</p> <p>Q E E K A V F F A G N E Y W V Y S A S T L E R G Y P K P L T S L G L P P D V Q Q</p> <p>V D A A F N W S K N K K T Y I F A G D K F W R Y N E V K K K M D P G F P K L I A</p> <p>D S W N A I P D N L D A V V D L Q G G G H S Y F F K G A Y Y L K L E N Q S L K S</p> <p>V K F G S I K S D W L G C</p>
Biological Activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH ₂ . The specific activity is 4214 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 (Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.) or 20 mM PB, 150 mM NaCl, pH 7.4.
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 ddH ₂ O.
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-2 protein is a versatile ubiquitous metalloproteinase with involvement in various functions, including vasculature
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remodeling, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. Apart from its role in degrading extracellular matrix proteins, it also acts on nonmatrix proteins such as big endothelial 1 and beta-type CGRP, promoting vasoconstriction. Furthermore, it cleaves KISS at a Gly-|-Leu bond and appears to play a role in myocardial cell death pathways and myocardial oxidative stress regulation by influencing GSK3beta activity. Additionally, MMP-2 is implicated in the formation of fibrovascular tissues and its C-terminal non-catalytic fragment, PEX, exhibits anti-angiogenic and anti-tumor properties while inhibiting cell migration and adhesion to FGF2 and vitronectin. Furthermore, MMP-2 serves as a ligand for integrin alpha-v/beta-3 on the surface of blood vessels.

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