

## Stromelysin-1/MMP-3 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70139
<b>Synonyms:</b>	rHuStromelysin-1/MMP-3, His; Stromelysin-1; SL-1; Matrix metalloproteinase-3; MMP-3; Transin-1; MMP3; STMY1
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P08254 (Y18-C477)
<b>Gene ID:</b>	4314
<b>Molecular Weight:</b>	Approximately 60 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> Y P L D G A A R G E   D T S M N L V Q K Y   L E N Y Y D L K K D   V K Q F V R R K D S G P V V K K I R E M   Q K F L G L E V T G   K L D S D T L E V M   R K P R C G V P D V G H F R T F P G I P   K W R K T H L T Y R   I V N Y T P D L P K   D A V D S A V E K A L K V W E E V T P L   T F S R L Y E G E A   D I M I S F A V R E   H G D F Y P F D G P G N V L A H A Y A P   G P G I N G D A H F   D D D E Q W T K D T   T G T N L F L V A A H E I G H S L G L F   H S A N T E A L M Y   P L Y H S L T D L T   R F R L S Q D D I N G I Q S L Y G P P P   D S P E T P L V P T   E P V P P E P G T P   A N C D P A L S F D A V S T L R G E I L   I F K D R H F W R K   S L R K L E P E L H   L I S S F W P S L P S G V D A A Y E V T   S K D L V F I F K G   N Q F W A I R G N E   V R A G Y P R G I H T L G F P P T V R K   I D A A I S D K E K   N K T Y F F V E D K   Y W R F D E K R N S M E P G F P K Q I A   E D F P G I D S K I   D A V F E E F G F F   Y F F T G S S Q L E F D P N A K K V T H   T L K S N S W L N C </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 0.05% Brij35, 10% Glycerol, pH 7.5.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice

### DESCRIPTION

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**Background**

Stromelysin-1/MMP-3, a metalloproteinase, exhibits a broad substrate specificity, capable of degrading various components of the extracellular matrix (ECM) such as fibronectin, laminin, gelatins (type I, III, IV, and V), collagens (III, IV, X, and IX), and cartilage proteoglycans. This enzyme plays a pivotal role in activating different molecules, including growth factors, plasminogen, or other matrix metalloproteinases like MMP9. Upon release into the ECM, the inactive pro-enzyme undergoes activation through the plasmin cascade signaling pathway. Stromelysin-1/MMP-3 also functions intracellularly, as observed in dopaminergic neurons where it becomes activated by the serine protease HTRA2 during stress, contributing to dopamine neuronal degeneration by mediating microglial activation and alpha-synuclein/SNCA cleavage. Additionally, this metalloproteinase plays a role in immune response and exhibits antiviral activity against various viruses, including vesicular stomatitis virus, influenza A virus (H1N1), and human herpes virus 1. Mechanistically, it translocates from the cytoplasm into the cell nucleus upon virus infection to modulate NF-kappa-B activities.

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

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