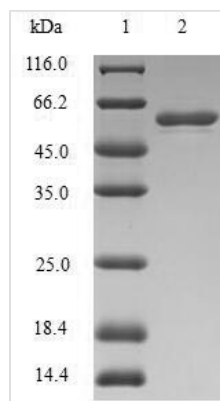




# Recombinant Human Stromelysin-1 (MMP3), partial

<b>Product Code</b>	CSB-EP014676HU
<b>Relevance</b>	Can degrade fibronectin, laminin, gelatins of type I, III, IV, and V; collagens III, IV, X, and IX, and cartilage proteoglycans. Activates procollagenase.
<b>Abbreviation</b>	Recombinant Human MMP3 protein, partial
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P08254
<b>Alias</b>	Matrix metalloproteinase-3 ;MMP-3Transin-1
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	TFPGIPKWRKTHLTyrIVNYTPDLPKDAVDSAVEKALKVWEEVTPLTFSRLYEG EADIMISFAVREHGDFYPFDGPGNVLAHAYAPGPGINGDAHFDDEQWTKDT TGTNLFVLAAHEIGHSLGLFHSANTEALMYPLYHSLTDLTRFRLSQDDINGIQSL YGPPDSPETPLVPTEPVPPEPGTPANCDPALSFDAVSTLRGEILIFKDRHFWR KSLRKLEPELHLISSFWPSLPSGVDAAYEVTSKDLVFIFKGNQFWAIRGNEVRA GYPRGIHTLGFPPTVRKIDAAISDKEKNKTYFFVEDKYWRFDKRN SMEPGFP KQIAEDFPGIDSKIDAVFEEFGFFYFFTGSSQLEFDPNAKKVTHLKSNSWLNC
<b>Research Area</b>	Cancer
<b>Source</b>	E.coli
<b>Target Names</b>	MMP3
<b>Expression Region</b>	102-477aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-SUMO-tagged
<b>Mol. Weight</b>	58.5kDa
<b>Protein Length</b>	Partial
<b>Image</b>	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The expression of recombinant human MMP3 protein includes the construction of the expression vector containing the recombinant DNA and the transformation of the expression vector into the E.coli, which provides a variety of macromolecules and components required for transcription and translation. The recombinant DNA was formed by fusing the N-terminal 6xHis-SUMO tag sequence to the designated sequence encoding the 102-477aa of the human MMP3 protein. This N-terminal 6xHis-tagged recombinant human MMP3 protein is also characterized by high purity, >90%. Under SDS-PAGE condition, this recombinant MMP3 protein migrated to the band of about 55 kDa molecular weight.

As the member of MMPs family, MMP3 is often involved in the modulation of endometrial inflammation and innate immunity. MMP-3 is composed of a signal peptide, which is cleaved off during the secretion process, a pro-domain, which is cleaved during the activation process, a catalytic domain which has a conserved zinc-binding site, a hinge domain, and a hemopexin domain. MMP3 expression was also detected at different intensity of inflammatory response. Importantly, MMP3 has been identified as a valuable marker for patients with COVID-19. In addition, MMP3 directly correlates with bovine endometritis, and its increasing may contribute to progression of bovine endometritis. Presently, MMP3 plays an important role in the pathology of rheumatoid arthritis (RA) and ankylosing spondylitis (AS). High levels of act-MMP-3 expression were observed in human synovial membrane culture and oncostatin M and TNF- $\alpha$  stimulated human cartilage. But further studies are required to clarify, whether act-MMP-3 can serve as a predictive marker for outcome in chronic rheumatoid disorders.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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