

Datasheet for ABIN3093845

**MMP2 Protein (AA 110-660) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	MMP2
Protein Characteristics:	AA 110-660
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This MMP2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence: YNFFPRKPKW DKNQITYRII GYTPDLDPET VDDAFARAFQ VWSDVTPLRF SRIHDGEADI  
MINFGRWEHG DGYPFDGKDG LLAHAFAPGT GVGGDSHFDD DELWTLGEGQ VVRVKYGNAD  
GEYCKFPFLF NGKEYNSCTD TGRSDGFLWC STTYNFEKDG KYGFCPHEAL FTMGGNAEGQ  
PCKFPFRFQG TSYDSCTTEG RTDGYRWCGT TEDYDRDKKY GFCPETAMST VGGNSEGAPC  
VFPFTFLGNK YESCTSAGRS DGKMWCATTA NYDDDRKWGF CPDQGYSFLF VAAHEFGHAM  
GLEHSQDPGA LMAPIYTYTK NFRLSQDDIK GIQELYGASP DIDLGTGPTP TLGPVTPEIC  
KQDIVFDGIA QIRGEIFFFK DRFIWRTVTP RDKPMGPLL V ATFWEPELPEK IDAVYEAPQE  
EKAVFFAGNE YWIYSASTLE RGYPKPLTSL GLPPDVQRVD AAFNWSKNKK TYIFAGDKFW  
RYNEVKKKMD PGFPKLIADA WNAIPDNLDA VVDLQGGGHS YFFKGAYYLLK LENQSLKSVK  
FGSIKSDWLG C

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

## Product Details

---

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Human MMP2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
  - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

- Purification:
- Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
  2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target:	MMP2
Alternative Name:	MMP2 ( <a href="#">MMP2 Products</a> )
Background:	<p>Ubiquitous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-I-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. Involved in the formation of the fibrovascular tissues in association with MMP14., PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin. Ligand for integrin<math>\alpha</math>5<math>\beta</math>3 on the surface of blood vessels., Isoform 2: Mediates the proteolysis of CHUK/IKKA and initiates a primary innate immune response by inducing mitochondrial-nuclear stress signaling with activation of the pro-inflammatory NF-kappaB, NFAT and IRF transcriptional pathways.</p>
Molecular Weight:	63.0 kDa Including tag.
UniProt:	<a href="#">P08253</a>
Pathways:	<a href="#">Activation of Innate immune Response</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

## Handling

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process