

# Recombinant Rat MMP2 Protein (110-662 aa), His-SUMO-tagged

**Cat. No.** MMP2-657R    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Rat MMP2 Protein (110-662 aa) is produced by E. coli expression system. This protein is fused with a 6xHis-SUMO tag at the N-terminal. Protein Description: Full Length of Mature Protein.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>ProteinLength</b>	110-662 aa
<b>Description</b>	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 domain 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- -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 .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 alpha-v/beta3 on the surface of blood vessels.
<b>Form</b>	Tris-based buffer, 50% glycerol

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<b>Molecular Mass</b>	78.1 kDa
<b>AA Sequence</b>	<p>YNFFPRKPKWDKNQITYRIIGYTPDLDPETVDDAFARALKVWSDVTPLRFSRIHDGE  ADIMINFGRWEHGDGYPFDGKDGLLAHAFAPGTGVGGDSHFDDDELWTLGEGQVV  RVKYGNADGEYCKFPFLFNGREYSSCTDTGRSDGFLWCSTTYNFEKDGKYGFCPH  EALFTMGGNGDGQPCKFPFRFQGTSYNSCTTEGRTDGYRWCGTTEDYDRDKKYG  FCPETAMSTVGGNSEGAPCVFPFTFLGNKYESCTSAGRSDGKVCATTTNYDDDR  KWGFCPDQGYSLFLVAAHEFGHAMGLEHSQDPGALMAPIYTYTKNFRLSNDIKGI  QELYGPSPDADTDTGTGPTPLGPTPEICKQDIVFDGIAQIRGEIFFFKDRFIWRTVT  PRDKPTGPLLVATFWPELPEKIDAVYEAPQEEKAVFFAGNEYWVYSASTLERGYPK  PLTSLGLPPDVQQVDAAFNWSKNKTYIFSGDKFWRYNEVKKKMDPGFPKLIADSW  NAIPDNLDAVVDLQGGGHSYFFKGYLLKLENQSLKSVKFGSIKSDWLGC</p>
<b>Purity</b>	> 90% as determined by SDS-PAGE.
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
<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 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
<b>Concentration</b>	A hardcopy of COA with concentration instruction is sent along with the products.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	Mmp2 matrix metalloproteinase 2 [ <i>Rattus norvegicus</i> ]
<b>Official Symbol</b>	MMP2

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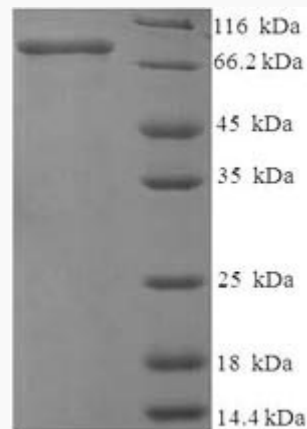
**Synonyms** MMP2; MMP-2; gelatinase A; 72 kDa gelatinase;

**Gene ID** 81686

**mRNA Refseq** NM\_031054

**Protein Refseq** NP\_112316

**UniProt ID** P33436



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

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