

## Recombinant Mouse Mmp2, His-tagged

Cat. No. Mmp2-416M Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	A DNA sequence encoding the mouse Mmp2 (NP_032636.1) (Met409-Cys622) was expressed with a polyhistidine tag at the N-terminus.
<b>Species</b>	Human
<b>Source</b>	Human Cells
<b>ProteinLength</b>	409-622 a.a.
<b>Description</b>	72 kDa type IV collagenase also known as matrix metalloproteinase-2 (MMP-2) and gelatinase A is an enzyme that in humans is encoded by the MMP2 gene. Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes an enzyme which degrades type IV collagen, the major structural component of basement membranes. The enzyme plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response.
<b>Predicted N Terminal</b>	His
<b>Form</b>	Lyophilized from sterile PBS, pH 7.4.
<b>Molecular Mass</b>	The recombinant mouse Mmp2 consists 273 amino acids and predicts a molecular

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	mass of 30.9 kDa.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Purity</b>	> 95 % as determined by SDS-PAGE.
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70°C
<b>Storage</b>	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Reconstitution</b>	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Mmp2 matrix metalloproteinase 2 [ Mus musculus (house mouse) ]</a>
<b>Official Symbol</b>	Mmp2
<b>Synonyms</b>	Mmp2; GelA; Clg4a; MMP-2; 72 kDa type IV collagenase; gelatinase A; 72kD gelatinase; 72kDa gelatinase; 72 kDa gelatinase; 72kD type IV collagenase; 72kDa type IV collagenase; matrix metalloproteinase 2; matrix metalloproteinase-2; NP_032636.1; EC 3.4.24.24
<b>Gene ID</b>	<a href="#">17390</a>
<b>mRNA Refseq</b>	<a href="#">NM_008610</a>
<b>Protein Refseq</b>	<a href="#">NP_032636</a>


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<b>UniProt ID</b>	P33434
<b>Chromosome Location</b>	8 C5; 8 44.99 cM
<b>Pathway</b>	Activation of Matrix Metalloproteinases; Collagen degradation; Estrogen signaling pathway
<b>Function</b>	fibronectin binding; hydrolase activity; metal ion binding

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