

Recombinant Human MMP2

Cat. No. MMP2-408H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Source	Mammalian Cells
Description	Matrix metalloproteinase 2, also known as MMP2, is an enzyme 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. MMP-2 degrades type IV collagen, the major structural component of basement membranes and plays a role in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. MMP2 has been found to be associated with tumor invasion in various cancers.
Sequence	The DNA sequence encoding the Pro human MMP-2 enzyme was expressed in NSO cells.
Purity	>90% by SDS Page and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method.
Biological Activity	The biological activity of Human MMP-2 was determined by its ability to cleave a fluorogenic peptide substrate, (7-methoxycoumarin-4-yl) Acetyl-Pro-Leu-Gly-Leu- (3-[2, 4-

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dinitrophenyl-L-2, 3-diaminopropionyl)-Ala-Arg-NH₂. The specific activity, measured under the described conditions, is >1,000 pmoles/min/μg.

Storage

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION

Gene Name

MMP2 matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase) [Homo sapiens]

Synonyms

MMP2; matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); CLG4; MONA; CLG4A; TBE-1; MMP-II; EC 3.4.24.24; MMP-2 ; 72 kDa gelatinase; Gelatinase A; Matrix metalloproteinase-2; collagenase type IV-A; matrix metalloproteinase 2; matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase; 72kDa type IV collagenase); matrix metalloproteinase-II; neutrophil gelatinase

Gene ID

4313

mRNA Refseq

NM_001127891

Protein Refseq

NP_001121363

MIM

120360

UniProt ID

P08253

Chromosome

16q13-q21

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Location	
Pathway	Bladder cancer; GnRH signaling pathway; Leukocyte transendothelial migration; Pathways in cancer; Diabetes pathways
Function	calcium ion binding; metalloendopeptidase activity; peptidase activity; protein binding; zinc ion binding
PDB rendering based on 1ck7. 	