

Active Recombinant Human Matrix Metalloproteinase 2 (Gelatinase A, 72 KDa Gelatinase, 72 KDa Type IV Collagenase)

Cat. No. MMP2-1715H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MMP2 was expressed in E. coli and purified by SDS PAGE and HPLC, 62.0 KDa.
Species	Human
Source	Human
Description	Matrix metalloproteinases (MMPs) are a family of endoproteases that require zinc and calcium for expressing catalytic activity. These enzymes play a central role in the maintenance and remodeling of the extracellular matrix. Elevated expression of their activity, caused either by up-regulation of their expression or down-regulation of their cognate inhibitors, has been implicated in various degenerative disorders, including arthritis, cardiovascular disease, skeletal growth-plate disorders, and cancer metastasis. MMP-2 is a secreted collagenase with specificity toward Type IV, V, VII, and X collagens.
Form	Supplied as a lyophilized powder.
Purity	> 90% pure by SDS PAGE and HPLC
Sequence	Region of MMP2 protein corresponding to amino acids MYNFFPRKPK WDKNQITYRI IGYTPDLDP E TVDDAFARAF QVWSDVTPLR FSRIHDGEAD IMINFGRW E H GDGYFPD GKD GLLAHAFAPG TGVGGDSHFD DDELWTLGEG QVVRVKYGNA DGEYCKFPFL FNGKEYNSCT DTGRSDGFLW CSTTYNFEKD GKYGFPC PHEA

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	LFTMGGNAEG QPCKF
Molecular Mass	62.0 kDa
Applications	Numerous applications are possible with this product and should be tested by the end user under their own laboratory conditions
Endotoxin Levels	Endotoxin level is less than 0.1 ng per ug (1 EU/ug).
Bioactivity	MMP-2 activity was measured by its ability to cleave a chromogenic peptide MMP-2 substrate at room temperature. At an MMP-2 concentration of 2.5 ug/ml, 50% cleavage was achieved at an incubation time of approximately 25 minutes.
Storage	Store at 4 deg C until reconstitution. Following reconstitution aliquot and freeze at -20 deg C for long term storage. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name	MMP2 matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase) [Homo sapiens]
Official Symbol	MMP2
Synonyms	MMP2; matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); MONA; CLG4A; TBE-1; MMP-II; matrix metalloproteinase 2; collagenase type IV-A; neutrophil gelatinase; matrix metalloproteinase-II; CLG4; EC 3.4.24.24; Matrix metalloproteinase-2; MMP-2; Gelatinase A
Gene ID	4313
mRNA Refseq	NM_001127891

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Protein Refseq	NP_001121363
MIM	120360
UniProt ID	P08253
Chromosome Location	16q13-q21
Pathway	ATF-2 transcription factor network; Angiopoietin receptor Tie2-mediated signaling; Bladder cancer; Diabetes pathways; GnRH signaling pathway; IL-3 Signaling Pathway; LPA receptor mediated events; Leukocyte transendothelial migration; Matrix Metalloproteinases; Osteopontin-mediated events; Pathways in cancer; Plasma membrane estrogen receptor signaling
Function	metal ion binding; metalloendopeptidase activity; peptidase activity; zinc ion binding
PDB rendering based on 1ck7.	