

Active Recombinant Human MMP2 protein, No Activation Required

Cat. No. MMP2-12H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Matrix Metalloproteinase-2 (MMP-2, Gelatinase A, Type IV collagenase) catalytic domain without fibronectin domains cloned from human cDNA, expressed in E. coli. The enzyme consists of the catalytic domain of human MMP-2 fibronectin deficient (residues 115-214 and 393-447 where the residue numbers are based on the unprocessed precursor, UniProtKB accession P08253).
Species	Human
Source	E.coli
ProteinLength	115-214, 393-447
Description	Glutathione S-transferases (GSTs) are a family of enzymes that play an important role in detoxification by catalyzing the conjugation of many hydrophobic and electrophilic compounds with reduced glutathione. Based on their biochemical, immunologic, and structural properties, the soluble GSTs are categorized into 4 main classes: alpha, mu, pi, and theta. This GST family member is a polymorphic gene encoding active, functionally different GSTP1 variant proteins that are thought to function in xenobiotic metabolism and play a role in susceptibility to cancer, and other diseases.
Bio-activity	> 40 U/μg. Activity described as U=100 pmol/min at 25 centigrade using a colorimetric assay with thiopeptide Ac-Pro-Leu-Gly-[2-mercapto-4-methyl-pentanoyl]-Leu-Gly-O

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	C2H5 as substrate.
Molecular Mass	17.5 kDa
AA Sequence	M-RKPKWDKNQITYRIIGYTPDLDPETVDDAFARAFQVWSDVTPLRFSRIHDGEADIM INFRWEHGDGYPFDGKDGLLAHAFAPGTGVGGDSHFDDDELWTQGYSFLVAAH EFGHAMGLEHSQDPGALMAPIYTYTKNFRLSQDDIKGIQELYGA
Purity	> 95% by SDS-PAGE. The protein is observed, in denaturing conditions, as a single band migrating at a molecular weight between 14.4 and 18.4 kDa.
Applications	Enzyme kinetic studies, cleavage of target substrates and screening of inhibitors.
Storage	At -80 centigrade. After initial defrost, aliquot the product into individual tubes and refreeze at -80 centigrade. Avoid repeated freeze/thaw cycles.
Concentration	0.15 mg/mL
Storage Buffer	Tris 20 mM pH 7.2, CaCl ₂ 10 mM, ZnCl ₂ 0.1 mM, NaCl 0.3 M, acetohydroxamic acid (AHA) 0.5 M, glycerol 10%, Brij-35 0.05%. The concentration is calculated by the analysis of the absorbance at 280 nm ($\epsilon_{280} = 32430 \text{ M}^{-1}\text{cm}^{-1}$ calculated).
Shipping	On Dry Ice

GENE INFORMATION

Gene Name	MMP2 matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase) [Homo sapiens (human)]
Official Symbol	MMP2

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Synonyms	MMP2; matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); CLG4, CLG4A, matrix metalloproteinase 2 (gelatinase A, 72kD gelatinase, 72kD type IV collagenase) , matrix metalloproteinase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); 72 kDa type IV collagenase; TBE 1; MMP-2; gelatinase A; 72 kDa gelatinase; collagenase type IV-A; neutrophil gelatinase; matrix metalloproteinase-2; matrix metalloproteinase-II; CLG4; MONA; CLG4A; TBE-1; MMP-II;
Gene ID	4313
mRNA Refseq	NM_001127891
Protein Refseq	NP_001121363
MIM	120360
UniProt ID	P08253