

Native Human MMP-9/TIMP-1 Complex

Cat. No. MMP9-41H Lot. No. (See product label)

SPECIFICATION

Product Overview	Matrix Metalloproteinase 9 – TIMP-1 complex (MMP-9-TIMP-1, Gelatinase B, 92 kDa Type IV Collagenase, EC 3.4.24.35). Prepared from human blood certified to be negative for HBsAg and for antibodies to HIV and HCV.
Species	Human
Source	Human Neutrophil
Form	Liquid, in 50 mM Tris/HCl, pH 7.0, 200 mM NaCl, 5 mM CaCl ₂ , 1 μM ZnCl ₂ , 0.05% NaN ₃ , 0.05% Brij 35.
Purity	>95%, homogenous by electrophoresis and Western Blotting analysis
Unit Definition	The specific activity can be assayed with the synthetic substrate N-(2,4)-dinitrophenyl-Pro-Gln-Gly-Ile-Ala-Gly-Gln-D-Arg (Dnp-peptide) (Masui et al. 1977). For maximal activation the progelatinase B should be incubated with 100 μg/ml TPCK-trypsin for 30 min. at 37°C, and then the Dnp-peptide should be added. If required the trypsin can be inhibited with 1 μl of aprotinin solution (1 mg/ml) and incubated for 10 min at 25°C. One unit MMP catalyzes the hydrolysis of 1 μmol Dnp peptide/min at 37°C and pH 7.0.
Storage	The enzyme can be kept at -80°C for many month, at -20°C for several weeks and at -4°C for at least 1 week without significant loss of activity. Repeated freezing and thawing must be avoided.

GENE INFORMATION

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Gene Name	MMP9 matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase) [Homo sapiens]
Official Symbol	MMP9
Synonyms	MMP9; matrix metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); CLG4B, matrix metalloproteinase 9 (gelatinase B, 92kD gelatinase, 92kD type IV collagenase) , matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); matrix metalloproteinase-9; 92 kDa gelatinase; type V collagenase; macrophage gelatinase; 92 kDa type IV collagenase; matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); GELB; CLG4B; MMP-9; MANDP2;
Gene ID	4318
mRNA Refseq	NM_004994
Protein Refseq	NP_004985
MIM	120361
UniProt ID	P14780
Chromosome Location	20q12-q13
Pathway	Activation of Matrix Metalloproteinases, organism-specific biosystem; Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Endochondral Ossification, organism-specific biosystem; Extracellular matrix organization, organism-specific

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biosystem;

Function

collagen binding; fibronectin binding; metal ion binding; metalloendopeptidase activity; peptidase activity; protein binding; protein complex binding; zinc ion binding;

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