

ProMatrix Metalloproteinase-7 / proMMP-7 Recombinant Human

Catalog No.	CRM011A CRM011B CRM011C	Quantity:	5 µg 20 µg 1 mg
Source:	<i>E. coli.</i>		
Background:	Matrix metalloproteinase-7 (MMP-7) also known as matrilysin and PUMP (EC 3.4.24.23) cleaves a number of substrates including collagen types IV and X, elastin, fibronectin, gelatin, laminin and proteoglycans. MMP-7 is closely related to the stromelysin family members but is encoded by a different gene. MMP-7 is the smallest of all the MMPs consisting of a pro-peptide domain and a catalytic domain. It lacks the hemopexin-like domain common to other members of the MMPs. MMP-7 is secreted as a 28 kDa proenzyme and can be activated <i>in vitro</i> by organomercurials and trypsin and <i>in vivo</i> by MMP-3 to a 18 kDa active MMP-7 enzyme. Once activated, MMP-7 can activate pro-MMP-1 and pro-MMP-9 but not pro-MMP-2. MMP-7 is widely expressed having been reported in elevated levels in cycling endometrium as well as in colorectal cancers and adenomas, hepatocellular carcinomas, rectal carcinomas, and approximately 50% of gliomas.		
Appearance:	Sterile filtered clear solution.		
Formulation:	Recombinant ProMMP-7, at a concentration of 1 mg/ml, 25 mM Tris-HCl (pH 7.5), 150 mM NaCl, 5 mM CaCl ₂ , 0.01% Brij-35 and 0.02% NaN ₃ .		
Stability:	ProMatrilysin, although stable at 4°C for 3 weeks, should be stored desiccated below -18°C. Please avoid freeze-thaw cycles.		
Purity:	Greater than 95.0% as determined by: Analysis by RP-HPLC, anion-exchange FPLC, and analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.		
Dimers & aggregates:	Less than 1% as determined by silver-stained SDS-PAGE gel analysis.		
Biological activity:	The specific activity was found to be 1400 IU/mg.		
Endotoxin:	Less than 0.1 ng/µg (1 EU/µg) of Recombinant ProMMP-7.		
Unit Definition:	One unit is defined as the digestion of 1 µg Azocoll/min at 37°C.		

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