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Product Datasheet

Product Name ProMatrix Metalloproteinase-7 Recombinant

Cata No CB500451

Source Escherichia Coli.

Synonyms

Description

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 in vitro by organomercurials and trypsin and in vivo 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.

Physical Appearance

Sterile clear liquid solution.

Biological Activity

The specific activity was found to be 1400 IU/mg.

Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

The protein contains the following additives 25mM Tris-HCl (pH 7.5),150mM NaCl, 5mM CaCl $_2$, 0.01% Brij-35 and 0.02% NaN $_3$.

Stability

ProMatrilysin although stable at 4° for 3 weeks, should be stored desiccated below -18°C.

Please prevent freeze-thaw cycles.