



## Product Datasheet

<b>Product Name</b>	Matrix Metalloproteinase-13 Human Recombinant
<b>Cata No</b>	CB500494
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	Collagenase 3, EC 3.4.24.-, Matrix metalloproteinase-13, MMP-13, CLG3.

### Description

Latent recombinant human pro-collagenase (MMP-13) also called collagenase-3 truncated from C-terminal.

Matrix Metalloproteinase-13 (MMP-13) is an enzyme that is a member of the MMP extracellular protease family. Extracellular protease enzymes, by virtue of their broad substrate specificities<sup>1</sup>, play a role in both normal and disease states of tissue proliferation. Among the targets of MMP-13 are collagen, gelatin, entactin, pro-TNF- $\alpha$ , and chemokine SDF-11-4.

MMP-13 is found in its latent form as a 52-56 kDa glycosylated proenzyme. Upon cleavage the 22-46 kDa<sup>5</sup> MMP-1 becomes active in extracellular matrix remodeling.

Because of the prominent role that MMP-1 plays in cell migration and metastasis, it is an important target for inhibition screening.

Matrix Metalloproteinase-13 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 27 kDa.

The Collagenase 3 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered clear solution.

### Biological Activity

Activity is determined by the cleavage of fluorogenic peptide, 100 ng of enzyme activated with APMA will digest 75-80% (1.5-1.6 nmole) of fluorogenic peptide substrate (0.1ml of 20 $\mu$ M solution) at 35 $^{\circ}$ C for 30 minutes.

### Purity

Greater than 90% as determined by SDS-PAGE.

### Formulation

The protein Solution (100  $\mu$ g/ml) in 0.05M Tris-HCl buffer, pH 7.6, containing 0.2M NaCl, 5mM CaCl<sub>2</sub>, 20 $\mu$ M ZnSO<sub>4</sub> and 0.1% BSA and NaN<sub>3</sub>.

### Stability

MMP-13 although stable at 4 $^{\circ}$ C for 1 week, should be stored desiccated below -18 $^{\circ}$ C.

**Please prevent freeze-thaw cycles.**

### Applications

Used as a standard for assaying MMP-13 or for screening inhibitors.