

Product Data Sheet

□ Cat # RP-403 Recombinant Human Matrix Metalloproteinase-13 **Size:** □ 1 ug

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, play a role in both normal and disease states of tissue proliferation. Among the targets of MMP-13 are collagen, gelatin, entactin, pro-TNF- α , 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 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.

Source: *Escherichia Coli*. 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. The protein Solution (100 μ g/ml, 0.1 ml) in 0.05M Tris-HCl buffer, pH 7.5, containing 0.2M NaCl, 5mM CaCl₂, 20 μ M ZnSO₄ and 0.1% BSA.

Applications and Suggested Dilutions: Greater than 90% as determined by SDS-PAGE. Used as a standard for assaying MMP-13 or for screening inhibitors. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: MMP-13 although stable at 14°C for 1 week, should be stored desiccated below -18°C. **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

Biological Activity: Activity is determined by the cleavage of fluorogenic peptide, 100 ng of enzyme activated with APMA will digest 80% fluorogenic peptide substrate (0.1ml of 20 μ M solution) at 35°C for 30 minutes, (10 μ g=100 assays).

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

RP-403 110208V

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