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Product Data Sheet

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□ Cat # RP-387

Recombinant Human Matrix Metalloproteinase-8

Size: □ 1 IU

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Full-length recombinant human neutrophil pro-collagenase (MMP-8), latent form. Matrix metalloproteinase 8 (MMP-8), or neutrophil collagenase, degrades interstitial collagens, acting preferentially on collagen type I. Increased full-length MMP-8 protein was associated with infiltration into the skin of neutrophils, which are the major cell type that expresses MMP-8. MMP-8 is synthesized and stored in specific granules in neutrophil leukocytes. MMP-8 activity is therefore regulated by factors such as surface-bound ligands (IgG or complement components) that release it through degranulation. Once released and activated through proteolytic or oxidative mechanisms, MMP-8 plays a major role in the connective tissue turnover that accompanies inflammatory processes.

**Source:** *Escherichia Coli*. Matrix Metalloproteinase-8 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 75 kDa. The MMP-8 is purified by proprietary chromatographic techniques. The protein Solution (100 µg/ml, 0.1 ml) in 0.05M Tris-HCl buffer, pH 7.5, containing 0.2M NaCl, 5mM CaCl<sub>2</sub>, 20µM ZnSO<sub>4</sub> and 0.1% BSA.

**Applications and Suggested Dilutions:** Greater than 90% as determined by SDS-PAGE. Used as a standard for analyzing mammalian collagenase activity. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** MMP-8 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:** 100 units/ml after activation with APMA by solution assay method (10U=100 assays). One unit of collagenolytic activity is defined as the cleavage of 1µg of collagen per minute.

**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.

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