



Product Information Sheet

Product Name:	Human MMP-13
Catalog Number:	72011
Size:	1 µg
Concentration:	10µg/ml
Recommended dilution:	FRET-based assay 1:50 –1:100
Activity (Unit/ug):	Provided on the label
Unit definition:	One unit of protease hydrolyzes 1 picomole of Mca-Pro-Leu-Gly-Leu-Dnp-Ala-Arg-NH ₂ (AnaSpec Cat#27076) per minute at pH 7.5 at 25 ^o C
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles

Instruction:

The matrix metalloproteinases (MMPs) constitute a family of zinc-dependent endopeptidases that function within the extracellular matrix. These enzymes are responsible for the breakdown of connective tissues and are important in bone remodeling, menstrual cycle and the repair of tissue damage. MMP-13 (collagenase-3),¹ is a member of the MMP family of extracellular proteases. Targets of MMP-13 include collagen, gelatin, aggrecan, plasminogen and CXCL12. The native MMP-13 is secreted as a 60-kDa proenzyme, and activated by cleavage to a mature 48-kDa MMP-13.

Recombinant human MMP-13 was expressed as a pro-enzyme from its DNA sequence,¹ with His-tag in CHO cells. The predicted *Mr* is 52-kDa. pro-MMP-13 can be activated by incubating with 1 mM APMA at 37°C for 40 min. Its activity can be measured in FRET-based enzymatic assays (AnaSpec Cat#71135, Cat#71156).

MMP-13 is stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM CaCl₂, 1mg/ml BSA.

References

1. Freije, J. et al. *J. Biol. Chem.* 269, 16766 (1994).