



Product Information Sheet

Product Name:	Human MMP-10, Recombinant
Catalog Number:	72067
Size:	1 µg
Concentration:	10µg/ml
Activity (Unit/µg):	Provided on the label
Unit definition:	One unit of protease hydrolyzes 1 picomole of Mca-Arg-Pro-Lys-Pro-Val-Glu-Nva-Trp-Arg-Lys(Dnp)-NH ₂ (AnaSpec, Cat#27114) per minute at pH 7.5 at 25°C.
Storage:	Store at -80°C. Avoid multiple thaw-freeze cycles.

Instruction:

Matrix metalloproteinases (MMPs) belong to a family of secreted or membrane-associated zinc endopeptidases capable of digesting extracellular matrix components.^{1,2} MMP-10 (stromelysin 2) is involved in several pathological conditions, such as cancer, arthritis and wound healing.³⁻⁶ MMP-10 is secreted as zymogen with a prodomain, a catalytic domain, a hinge region, and a hemopexin-like domain. It can activate other MMPs such as MMP-1, MMP-8 and degrade a variety of substrates, including gelatin, collagens III, IV and V, fibronectin, aggrecan.

This recombinant human MMP-10 was expressed as a pro-enzyme enzyme from its DNA sequence⁷ transfected into a mouse myeloma cell line, NS0. The apparent *Mr* on SDS-PAGE is 58-kDa. Incubation with 1 mM APMA at 37°C for 1-2 hours will activate pro-MMP-10. Its activity can be measured by FRET peptides (AnaSpec Cat#72024). 20 ng of enzyme is sufficient for FRET-based assay.

MMP-10 is stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM CaCl₂, 1 mg/mL BSA. Endotoxin level is less than 1.0 EU per µg of enzyme determined by LAL method.

References

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4. Ramos, MC. et al. *Biol. Chem.* **385**, 75 (2004).
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