

Human Pro-Matrix Metalloproteinase 13 (Pro-MMP-13)

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|--------------------------|---|
| CATALOG #: | 7785-10 |
| AMOUNT: | 10 µg |
| SOURCE: | Sf9 cells |
| PURIFIED PROTEIN: | recombinant full-length human MMP-13 (EC 3.4.24.--) |
| PURITY: | >95% by SDS-PAGE |
| FORM: | Liquid, 50 mM Tris pH 6.5, 250 mM NaCl, 5 mM CaCl ₂ , 1 mM ZnCl ₂ |
| CONCENTRATION: | 115 µg/ml, >200 munits/mg (international unit 1 mole/min/mg) |
| MOLECULAR WEIGHT: | 53.820 kDa [471 amino acid residues [1-mhpgvlaaf -----rvmpansilw c-471] |

NOTE:

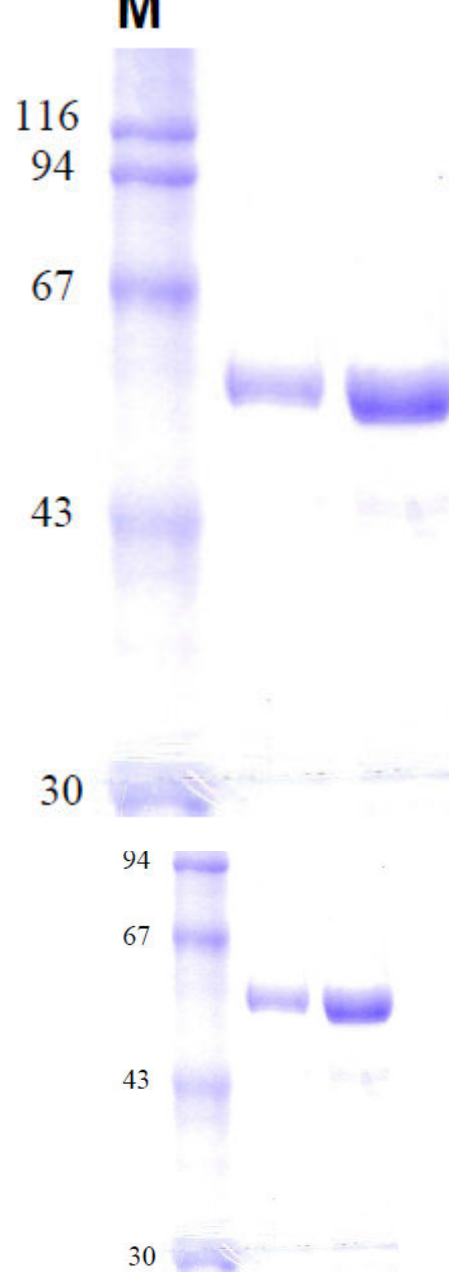
This product contains neither an N- nor C-terminal tag. Swiss Prot# P45452. This product is APMA activated, which had been removed after activation employing SEC and dialysis.

STORAGE CONDITIONS:

MMP-13 is very stable if aliquoted and stored (prevents auto-activation) at -70°C. Repeated freezing and thawing should be avoided. Dilute and activate only the amount of enzyme you need, do not store enzyme in reaction buffer.

DESCRIPTION:

MMP-13 (Collagenase-3) was first identified in human mammary carcinoma (Freije et al., 1994, Willmroth et al. 1998) - probably induced by IL1- alpha and IL-1 beta - and shown to be glycosylated and the inactive zymogen displaying a relative molecular weight of 60 kDa. Cleavage of the 84 residue propeptide can be catalysed by other MMPs such as MMP-2, MMP-3 and MMP-14, or by factors like plasmin. The proenzyme activated by APMA (paminohexylmercuric acetate) or leads to the active enzyme with a relative molecular weight of app. **48 kDa** which easily autodegrades into a 30 kDa form. This highly active 30 kDa form still retains the characteristics of the app. **48 kDa** form. MMP-13 also plays a central role in the MMP activation cascade, both activating and being activated by several MMPs (Leeman et al., 2002).



d by plasmin and by the two nin-activation can deactivate enylmercuric acetate), yields ch easily autodegrades into a cteristics of the 48 kDa form. ctivity and is inhibited by the id by EDTA.

ed to be selective for MMP-/sulfonyltetrahydropyran-3- and aggrecanase based on ases (Noe et al., 2004). The oproteinase-1, -2, and -3 and

RELATED PRODUCTS:

- MMP-13 Antibody: (**Cat# 3533-100**)
- MMP-13 Blocking Peptide: (**Cat# 3533BP-50**)

FOR RESEARCH USE ONLY! Not to be used on humans.