Product Information Sheet

Product Name:	MMP-2 enzyme, Human
Catalog Number:	72005
Size:	1 μg
Concentration:	10 μg/mL
Activity (Unit/μg):	Provided on the label
Unit definition:	One unit of protease hydrolyzes 1 picomole of Mca-Pro-Leu-Gly-Leu-Dap(Dnp)-Ala-Arg-NH_2 (AnaSpec Cat#27077) per minute at pH 7.4 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-2 (72-kDa gelatinase-A) is involved in tumor development and metastasis[3-5]. It is proposed as a therapeutic target for cancer.

Recombinant human MMP-2 was expressed as a pro-enzyme from its DNA sequence, transfected into CHO cells. The pro-MMP-2 can be fully activated by incubating with 1 mM APMA at 37°C for 20 min to 1 hr.[6]Its activity can be measured in FRET-based enzymatic assays (AnaSpec Cat#71129, Cat#71151). 10-20 ng of enzyme is sufficient for FRET-based assay.

The MMP-2 is stored in 50mM Tris-HCl at pH 7.5, 0.2M NaCl, 5mM $CaCl_2$, 1uM $ZnCl_2$, 0.05% Brij35 and 1mg/ml BSA.

References

1. Woessner, J. et al. *J. Biol. Chem.* 263, 16918 (1988).
2. Woessner, J. et al. *FASEB. J.* 5, 2145 (1991).
3. Collier, I. et al. *J. Biol. Chem.* 263, 6579 (1988).
4. Salo, T. et al. *J.Biol.Chem.* 258, 3058 (1983).
5. Salo, T. et al. *J.Biol.Chem.* 260, 8526 (1985).
6. Murphy, G. et al. *J. Biol Chem.* 269, 6632 (1994).