



Product Information

α -MAPI

Product Number **M 9812**

Storage Temperature -20°C

Syn: H-Phe-urea-Arg-Val-Phe-CHO, Microbial alkaline proteinase inhibitor α

Product Description

Molecular formula: $\text{C}_{30}\text{H}_{41}\text{N}_7\text{O}_6$

Molecular weight: 595 Da

Purity: Minimum 95% by HPLC

α -MAPI (microbial alkaline proteinase inhibitor) is a synthetic peptidic aldehyde that was originally detected in *Streptomyces*. There are three forms of MAPI, designated α -, β -, and γ -MAPI. This family of protease inhibitors is characterized by having both a ureido functional group and a carboxyl-terminal aldehyde group. α -MAPI binds strongly to the HIV-I protease and inhibits this protease with a potency comparable to that of pepstatin. It does not inhibit other aspartic proteases. In general, peptidic aldehydes act in the hydrated form as transition-state analogues with an optimum inhibitory concentration of approximately $0.9\ \mu\text{M}$.

Reagent

α -MAPI is supplied as off-white powder.

Preparation Instructions

α -MAPI is soluble in water at 2 mg/mL with sonication. It is also soluble in methanol.

Storage/Stability

Store desiccated at -20°C .

References

1. Sarubbi, E., et al., Peptide aldehydes as inhibitors of HIV protease. *FEBS Lett.*, **319**, 253-256(1993).
2. Broadbridge, R.J., et al., First efficient synthesis of α -MAPI, *Chem. Commun.*, 1449-1450(1998).

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