ProductInformation

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: $C_{30}H_{41}N_7O_6$
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 uriedo 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 μM.

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).

LCM 12/01