

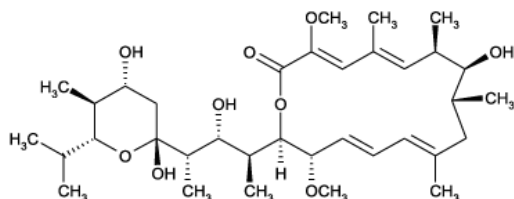
Product Information

Bafilomycin A1 from *Streptomyces griseus*

Product Number **B 1793**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN: 88899-55-2



Molecular formula: $\text{C}_{35}\text{H}_{58}\text{O}_9$

Molecular weight: 622.83

$E_M = 25,000$ (245 nm; methanol)

12,100 (280 nm; methanol)¹

Appearance: film (dried *in situ*)

Product Description

Bafilomycin A1 belongs to a group of macrolide 16-membered lactone ring antibiotics produced by *Streptomyces griseus Sulphurus ssp.* Bafilomycin A1 is active against gram-positive bacteria and fungi¹. It is a highly specific inhibitor of vacuolar type H^+ -ATPase (V-ATPase) in animal cells, plant cells and microorganisms, being effective at nanomolar concentrations *in vitro*. It inhibits neither F1, F10 nor E1, E2-ATPase.²

Bafilomycin A1 is useful in distinguishing among different types of ATPases. It is commonly employed to demonstrate the requirement of low endosomal pH for viral uncoating.^{3,4} It can inhibit growth of Capan-1 human pancreatic cancer cells⁵ and PC12 cells⁶ through apoptosis. Inhibition of V-ATPase by Bafilomycin A1 leads to increase in pH and decreased glycolysis, and thus reduced tumour cell mitosis and proliferation.⁷

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Soluble in ethanol or DMSO at 0.1 mg/ml. Also soluble in acetone, methanol and chloroform.

Storage/Stability

The unopened vial is stable for 3 years if stored sealed at $-20\text{ }^{\circ}\text{C}$. Stock solutions can be prepared in DMSO and stored at $-20\text{ }^{\circ}\text{C}$.⁷

References

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NDH/PHC 12/04

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