1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{35}\text{H}_{58}\text{O}_{9} \)
Batch Molecular Weight: 622.84
Physical Appearance: White lyophilised solid
Solubility: DMSO to 100 mM
Storage: Desiccate at -20°C

2. ANALYTICAL DATA

HPLC: Shows 99.3% purity
Product Name: Bafilomycin A1  
Catalog No.: 1334  
Batch No.: 15

CAS Number: 88899-55-2  

Description:
Highly potent, selective inhibitor of vacuolar H+-ATPases (IC₅₀ = 0.6 - 1.5 nM in bovine chromaffin granules). Selective for v-ATPase over other ATP hydrolyzing enzymes such as F-ATPases and the H⁺/K⁺-ATPase (P-ATPase). Thought to inhibit autophagy either by blocking autophagosome-lysosome fusion (in H4IIE cells), or by blocking lysosomal degradation.

Physical and Chemical Properties:
Batch Molecular Formula: C₃₅H₅₈O₇
Batch Molecular Weight: 622.84
Physical Appearance: White lyophilised solid
Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate at -20°C

Solubility & Usage Info:
DMSO to 100 mM
Avoid freeze-thaw cycles of this product; it is recommended that aliquots of stock solutions be thawed only once, immediately before use. Huss et al (2005) Archazolid and apicularen: Novel specific V-ATPase inhibitors. BMC Biochemistry 6 13. This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References: