

Cat No. 24-R68

Bafilomycin A1

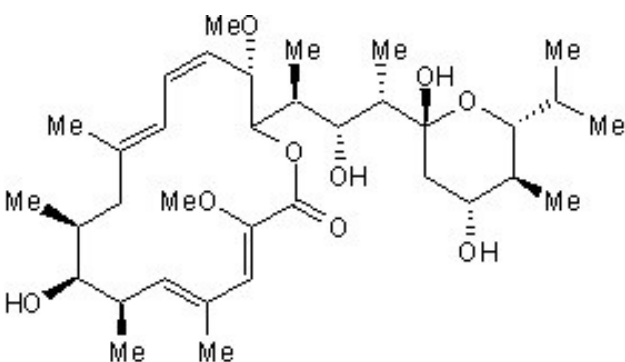


1mg

For research purposes only

Bafilomycin A1 is a macrolide antibiotic that selectively inhibits vacuolar-type (v-type) H⁺ ATPase. The compound can inhibit E1E2 ATPases from sarcoplasmic reticulum, E. coli, and ox brain versus F1F0 ATPases found in bacteria and mitochondria. It blocks pH regulation in brain cells. Additionally, Bafilomycin A1 prevents lysosomal cholesterol trafficking in macrophages and can be used to distinguish different types of ATPases. Research shows that Bafilomycin A1 can inhibit macroautophagy and promote apoptosis in colon cancer cells.

TECHNICAL INFORMATION



Other Names: (3Z, 5E, 7R, 8S, 9S, 11E, 13E, 15S, 16R)-8-hydroxy-16-[(1S, 2R, 3S)-2-hydroxy-1-methyl-3-[(2R, 4R, 5S, 6R)-tetrahydro-2, 4-dihydroxy-5-methyl-6-(1-methylethyl)-2H-pyran-2-yl]butyl]-3, 15-dimethoxy-5, 7, 9, 11-tetramethyl-oxacyclohexadeca-3, 5, 11, 13-tetraen-2-one

Chemical Formula: C₃₅H₅₈O₉

CAS Number: 88899-55-2

PubChem Substance ID: 6436223

Molecular Weight: 622.83

Purity: >98%

Appearance: Crystalline solid

Solubility: DMSO

IC₅₀ : 0.6-1.5nM

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO. Soluble at 20mg/ml.

REFERENCES

1. Kleinbeck, F., et al (2012). Total synthesis of bafilomycin A1. *Chemistry*. 18:3598-610.
2. Kawaguchi, T., et al (2011). Combined treatment with bortezomib plus bafilomycin A1 enhances the cytotoxic effect and induces endoplasmic reticulum stress in U266 myeloma cells: crosstalk among proteasome, autophagy-lysosome and ER stress. *Int. J. Oncol.* 38:643-54.