

# PRODUCT INFORMATION



## Bafilomycin C<sub>1</sub> Item No. 19625

CAS Registry No.: 88979-61-7

Formal Name: 2E-butenedioic acid-1-[(2R,4R,5S,6R)-tetrahydro-2-hydroxy-2-[(1S,2R,3S)-2-hydroxy-3-[(2R,3S,4E,6E,9S,10S,11R,12E,14Z)-10-hydroxy-3,15-dimethoxy-7,9,11,13-tetramethyl-16-oxooxacyclohexadeca-4,6,12,14-tetraen-2-yl]-1-methylbutyl]-5-methyl-6-(1-methylethyl)-2H-pyran-4-yl] ester

Synonyms: 2-Demethyl-2-methoxy-24-methyl-hygrolidin, L-681,110A1

MF: C<sub>39</sub>H<sub>60</sub>O<sub>12</sub>

FW: 720.9

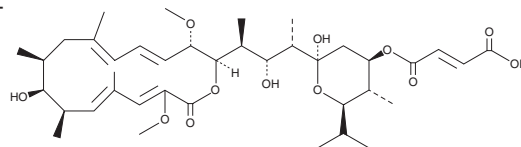
Purity: ≥95%

UV/Vis.: λ<sub>max</sub>: 249, 287 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Bafilomycin C<sub>1</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the bafilomycin C<sub>1</sub> in the solvent of choice, which should be purged with an inert gas. Bafilomycin C<sub>1</sub> is soluble in organic solvents such as methanol and DMSO. The solubility of bafilomycin C<sub>1</sub> in these solvents is approximately 5 mg/ml.

### Description

Bafilomycin C<sub>1</sub> is a bacterial metabolite that has been found in *Streptomyces* and has diverse biological activities.<sup>1-6</sup> It inhibits the activities of vacuolar H<sup>+</sup>-ATPases (V-ATPases) and Na<sup>+</sup>/K<sup>+</sup>-ATPases in a concentration-dependent manner.<sup>2,3</sup> Bafilomycin C<sub>1</sub> (1 mg/ml) is active against a panel of 24 fungi in a disc assay.<sup>4</sup> It inhibits angiogenesis in a chorioallantoic membrane (CAM) assay when used at concentrations of 0.03, 0.1, or 0.3 μM.<sup>5</sup> Bafilomycin C<sub>1</sub> reduces viral genome copy numbers in the culture supernatant of Vero E6 cells infected with H1N1 influenza A.<sup>6</sup>

### References

1. Bowman, E.J., Siebers, A., and Altendorf, K. *Proc. Natl. Acad. Sci. USA* **85**(21), 7972-7976 (1988).
2. Papini, E., de Bernard, M., Bugnoli, M., et al. *FEMS Microbiol. Lett.* **113**(2), 155-159 (1993).
3. Huang, L., Albers-Schonberg, G., Monaghan, R.L., et al. *J. Antibiot. (Tokyo)* **37**(9), 970-975 (1984).
4. Werner, G., Hagenmaier, H., Drautz, H., et al. *J. Antibiot. (Tokyo)* **37**(2), 110-117 (1984).
5. Ishii, T., Hida, T., Iinuma, S., et al. *J. Antibiot. (Tokyo)* **48**(1), 12-20 (1995).
6. Xie, X., Lu, S., Pan, X., et al. *J. Nat. Prod.* **84**(2), 537-543 (2021).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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