

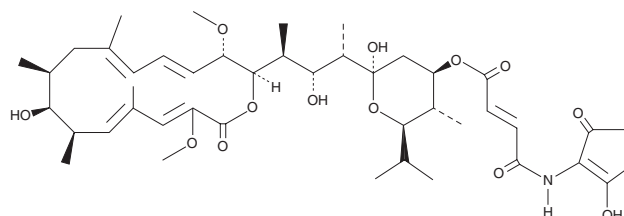
PRODUCT INFORMATION



Bafilomycin B₁ Item No. 14005

CAS Registry No.: 88899-56-3

Formal Name: 4-[(2-hydroxy-5-oxo-1-cyclopenten-1-yl)amino]-4-oxo-2E-butenoic acid, (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



Synonym: Setamycin

MF: C₄₄H₆₅NO₁₃

FW: 816.0

Purity: ≥97%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces hygroscopicus*

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

Laboratory Procedures

Bafilomycin B₁ is supplied as a crystalline solid. A stock solution may be made by dissolving the bafilomycin B₁ in the solvent of choice, which should be purged with an inert gas. Bafilomycin B₁ is soluble in DMSO.

Description

Bafilomycin B₁ is a bacterial metabolite that has been found in *Streptomyces* and has diverse biological activities.¹⁻⁶ It inhibits the activity of rat liver lysosomal vacuolar H⁺-ATPase (V-ATPase) in a concentration-dependent manner.⁴ Bafilomycin B₁ (10-1,000 nM) induces autophagosome accumulation in MCF-7 cells.⁵ It inhibits chloroquine-induced apoptosis in primary cerebellar granule neurons (CGNs) when used at a concentration of 1 nM.³ Bafilomycin B₁ reduces viral genome copy numbers in the culture supernatant of Vero E6 cells infected with H1N1 influenza A.⁶

References

1. Bowman, E.J., Siebers, A., and Altendorf, K. *Proc. Natl. Acad. Sci. USA* **85**(21), 7972-7976 (1988).
2. Yamamoto, A., Tagawa, Y., Yoshimori, T., et al. *Cell Struct. Funct.* **23**(1), 33-42 (1998).
3. Shacka, J.J., Klocke, B.J., and Roth, K.A. *Autophagy* **2**(3), 228-230 (2006).
4. Papini, E., de Bernard, M., Bugnoli, M., et al. *FEMS Microbiol. Lett.* **113**(2), 155-159 (1993).
5. Carr, G., Williams, D.E., Díaz-Marrero, A.R., et al. *J. Nat. Prod.* **73**(3), 422-427 (2010).
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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM