

PRODUCT INFORMATION



Amicoumacin B

Item No. 31777

CAS Registry No.: 77674-99-8
Formal Name: 3-amino-2,3,6-trideoxy-6-[[[(1S)-1-[(3S)-3,4-dihydro-8-hydroxy-1-oxo-1H-2-benzopyran-3-yl]-3-methylbutyl]amino]-6-oxo-D-ribo-hexonic acid

Synonym: Compound 5195A

MF: C₂₀H₂₈N₂O₈

FW: 424.4

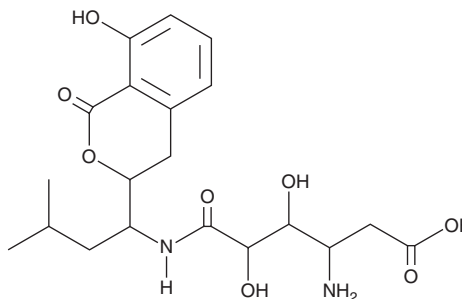
Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Nocardia* sp.



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

Laboratory Procedures

Amicoumacin B is supplied as a solid. A stock solution may be made by dissolving the amicoumacin B in the solvent of choice, which should be purged with an inert gas. Amicoumacin B is soluble in organic solvents such as methanol and DMSO.

Description

Amicoumacin B is an amicoumacin that has been found in *N. jinanensis* and has quorum-sensing inhibitory activity.¹ It is active against *C. violaceum* (MIC = 250 µg/ml) and reduces the expression of the *C. violaceum* operons *vioA*, *vioB*, *vioD*, and *vioE*, but increases the expression of *vioC*, indicating quorum sensing inhibitory activity.² Amicoumacin B increases the expression of bone morphogenetic protein 2 (BMP2) in MG-63 cells.^{1,3}

References

1. Sun, W., Zhang, Y.-Q., Huang, Y., et al. *Nocardia jinanensis* sp. nov., an amicoumacin B-producing actinomycete. *Int. J. Syst. Evol. Microbiol.* **59**(Pt 2), 417-420 (2009).
2. Shi, W.-P., Zeng, H., Wan, C.-X., et al. Amicoumacins from a desert bacterium: quorum sensing inhibitor against *Chromobacterium violaceum*. *Nat. Prod. Res.* (2020).
3. Zhao-Yong, Y., Zhi-Fei, Z., Xiao-Bo, H., et al. Study on the effect of amicoumacin B on up-regulating bmp-2 transcription and expression in MG63 cells. *Chin. J. Antibiot.* **33**(4), 203-205 (2008).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/16/2023

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