

PRODUCT INFORMATION



Napyradiomycin A₁

Item No. 29215

CAS Registry No.: 103106-24-7
Formal Name: (3R,4aR,10aS)-3,4a-dichloro-10a-
[(2E)-3,7-dimethyl-2,6-octadien-1-yl]-
3,4,4a,10a-tetrahydro-6,8-dihydroxy-
2,2-dimethyl-2H-naphtho[2,3-b]
pyran-5,10-dione

MF: C₂₅H₃₀Cl₂O₅

FW: 481.4

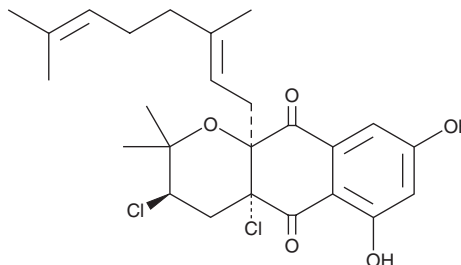
Purity: ≥70%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces* sp.



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

Laboratory Procedures

Napyradiomycin A₁ is supplied as a solid. A stock solution may be made by dissolving the napyradiomycin A₁ in the solvent of choice, which should be purged with an inert gas. Napyradiomycin A₁ is soluble in organic solvents such as ethanol, methanol, dichloromethane, and DMSO.

Description

Napyradiomycin A₁ is a fungal metabolite originally isolated from *C. rubra* and has diverse biological activities.^{1,2} It is active against *S. aureus*, *M. luteus*, *B. anthracis*, *C. bovis*, and *M. smegmatis* (MICs = 1.56-12.5 µg/ml).¹ Napyradiomycin A₁ is an estrogen receptor antagonist (IC₅₀ = 4.2 µM in rat uterine homogenates).² It also inhibits mitochondrial NADH:ubiquinone oxidoreductase (complex I) and succinate:ubiquinone oxidoreductase (complex II) activities in bovine heart homogenates (IC₅₀s = 20 and 9.7 µM, respectively).³

References

1. Shiomi, K., Iinuma, H., Hamada, M., *et al.* Novel antibiotics napyradiomycins. Production, isolation, physico-chemical properties and biological activity. *J. Antibiot. (Tokyo)* **39(4)**, 487-493 (1986).
2. Hori, Y., Abe, Y., Shigematsu, N., *et al.* Napyradiomycins A and B1: Non-steroidal estrogen-receptor antagonists produced by a *Streptomyces*. *J. Antibiot. (Tokyo)* **46(12)**, 1890-1893 (1993).
3. Yamamoto, K., Tashiro, E., Motohashi, K., *et al.* Napyradiomycin A1, an inhibitor of mitochondrial complexes I and II. *J. Antibiot. (Tokyo)* **65(4)**, 211-214 (2012).

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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