

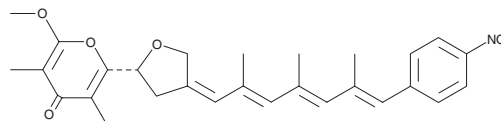
PRODUCT INFORMATION



Neoareothin

Item No. 28091

CAS Registry No.: 59795-94-7
Formal Name: 2-methoxy-3,5-dimethyl-6-[(2R,4Z)-tetrahydro-4-[(2E,4E,6E)-2,4,6-trimethyl-7-(4-nitrophenyl)-2,4,6-heptatrien-1-ylidene]-2-furanyl]-4H-pyran-4-one
Synonyms: NSC 260179, Spectinabilin
MF: C₂₈H₃₁NO₆
FW: 477.6
Purity: ≥98%
UV/Vis.: λ_{max}: 268, 368 nm
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

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

Description

Neoareothin is a bacterial metabolite that has been found in *Streptomyces*.¹ It is an androgen receptor (AR) antagonist that inhibits binding of dihydrotestosterone (DHT) to ARs (IC₅₀ = 13 μM) and inhibits DHT-induced expression of prostate-specific antigen in LNCaP cells (IC₅₀ = 1.75 nM). Neoareothin is cytotoxic to A549, HCT116, and HepG2 cells (IC₅₀s = 34.3, 47, and 37.2 μg/ml, respectively).² It also has nematocidal activity against the pine wood nematode *B. xylophilus* (LC₅₀ = 0.84 μg/ml) and increases survival of *P. densiflora* trees inoculated with *B. xylophilus*.³

References

1. Kawamura, T., Fujimaki, T., Hamanaka, N., *et al.* Isolation and structure elucidation of a novel androgen antagonist, arabilin, produced by *Streptomyces* sp. MK756-CF1. *J. Antibiot. (Tokyo)* **63**(10), 601-605 (2010).
2. Liu, C.X., Liu, S.H., Zhao, J.W., *et al.* A new spectinabilin derivative with cytotoxic activity from ant-derived *Streptomyces* sp. 1H-GS5. *J. Asian Nat. Prod. Res.* **19**(9), 924-929 (2017).
3. Liu, M.J., Hwang, B.S., Jin, C.Z., *et al.* Screening, isolation and evaluation of a nematocidal compound from actinomycetes against the pine wood nematode, *Bursaphelenchus xylophilus*. *Pest. Manag. Sci.* **75**(6), 1585-1593 (2019).

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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