

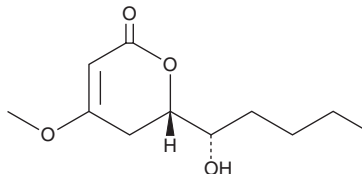
PRODUCT INFORMATION



Pestalotin

Item No. 25516

CAS Registry No.: 34565-32-7
Formal Name: (6S)-5,6-dihydro-6-[(1S)-1-hydroxypentyl]-4-methoxy-2H-pyran-2-one
Synonym: (-)-Pestalotin
MF: C₁₁H₁₈O₄
FW: 214.3
Purity: ≥99%
Supplied as: A powder
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

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

Pestalotin is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Pestalotin is a fungal metabolite originally isolated from *P. cryptomeriaecola* with diverse biological activities.¹ It induces reducing sugar release in embryoless rice endosperms when used at concentrations ranging from 3 to 100 mg/L and enhances growth of rice seedlings (*O. sativa*) when used in combination with gibberellin A₃ at concentrations ranging from 30 to 500 mg/L. Pestalotin has antifungal activity, reducing the growth of *C. albicans*, *C. neoformans*, *T. rubrum*, and *A. fumigatus* (MICs = 12.5, 50, 50, and 50 µg/ml, respectively).² It is cytotoxic to HL-60, MKN45, LoVo, and A549 cells (IC₅₀s = 64.87-182.92 µM). Pestalotin has been used as a standard for dereplication of natural products.³

References

1. Kimura, Y., Katagiri, K., and Tamura, S. Isolation and biological activity of pestalotin, a gibberellin synergist from *Pestalotia cryptomeriaecola*. *Arg. Biol. Chem.* **35**(8), 1313-1314 (1971).
2. Wu, L.-S., Jia, M., Chen, L., et al. Cytotoxic and antifungal constituents isolated from the metabolites of endophytic fungus DO14 from *Dendrobium officinale*. *Molecules* **21**(1), E14 (2015).
3. Nielsen, K.F., Månsson, M., Rank, C., et al. Dereplication of microbial natural products by LC-DAD-TOFMS. *J. Nat. Prod.* **74**(11), 2338-2348 (2011).

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, 12/20/2022

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