

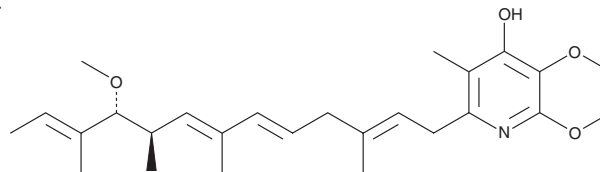
PRODUCT INFORMATION



Piericidin B

Item No. 33721

CAS Registry No.: 16891-54-6
Formal Name: 2,3-dimethoxy-6-[(2E,5E,7E,9R,10R,11E)-10-methoxy-3,7,9,11-tetramethyl-2,5,7,11-tridecatetraen-1-yl]-5-methyl-4-pyridinol
MF: C₂₆H₃₉NO₄
FW: 429.6
Purity: ≥98%
UV/Vis.: λ_{max}: 239 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year



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

Laboratory Procedures

Piericidin B is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as methanol, DMSO, and dimethyl formamide purged with an inert gas can be used.

Description

Piericidin B is a bacterial metabolite that has been found in *S. mobaraensis* and has insecticidal and antimicrobial activities.¹⁻³ It inhibits NADH oxidase activity in isolated bovine heart mitochondria and inhibits respiration in isolated rat liver mitochondria and isolated cockroach (*P. americana*) muscle mitochondria.^{2,3} Topical application of piericidin B (4 µg/insect) induces mortality in 87.5% of houseflies (*M. domestica*).¹ It induces 93.3, 100, and 100% mortality in rice stem borer (*C. simplex*), silkworm (*B. mori*), and green caterpillar (*P. rapae*) larvae, respectively, when applied at respective concentrations of 60, 4.8, and 96 µg/larva. Piericidin B is active against the fungi *T. asteroides*, *T. rubrum*, *M. gypseum*, and *C. neoforms* (MICs = 20, 10, 20, and 2 µg/ml, respectively), as well as the bacteria *M. luteus* and *P. vulgaris* (MICs = 50 and 100 µg/ml, respectively).

References

1. Takahashi, N., Suzuki, A., Kimura, Y., *et al.* Isolation, structure and physiological activities of piericidin B, natural insecticide produced by a *Streptomyces*. *Agr. Biol. Chem.* **32(9)**, 1115-1122 (1968).
2. Jeng, M., Hall, C., Crane, F.L., *et al.* Inhibition of mitochondrial electron transport by piericidin A and related compounds. *Biochemistry* **7(4)**, 1311-1322 (1968).
3. Mitsui, T., Fukami, J.-I., Fukunaga, K., *et al.* Studies on piericidin. I. : Effects of piericidin A and B on mitochondrial electron transport in insect muscle comparing with rotenone. *Sci. Insect Control* **34(3)**, 126-134 (1969).

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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