

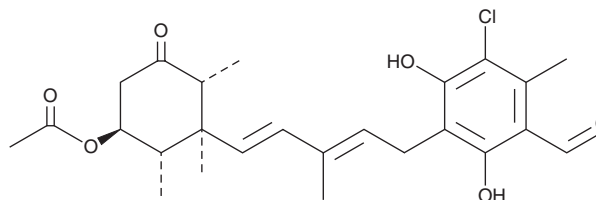
PRODUCT INFORMATION



Illicolin F

Item No. 29850

CAS Registry No.: 22738-98-3
Formal Name: 3-[(2E,4E)-5-[(1S,2S,3S,6R)-3-(acetyloxy)-1,2,6-trimethyl-5-oxocyclohexyl]-3-methyl-2,4-pentadien-1-yl]-5-chloro-2,4-dihydroxy-6-methyl-benzaldehyde
Synonym: LL-Z 1272Z
MF: C₂₅H₃₁ClO₆
FW: 463.0
Purity: ≥70%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/Unidentified sp.



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

Laboratory Procedures

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

Description

Illicolin F is a fungal metabolite that has been found in *Fusarium* and has diverse biological activities.¹⁻³ It inhibits *T. vivax* alternative oxidase and the *E. coli* ubiquinol oxidase cytochrome *bo* (IC₅₀s = 0.43 and 0.37 μM, respectively) but not the *E. coli* ubiquinol oxidase cytochrome *bd* (IC₅₀ = 85 μM).² Illicolin F is active against the fungi *A. fumigatus* and *C. albicans* (MICs = 1.66-3.33 and 6.66-13.33 μg/ml, respectively).⁴ It is cytotoxic to HeLa cells with an EC₅₀ value of 0.003 μg/ml.⁵

References

1. Ellestad, G.A., Evans, R.H., Jr., and Kunstmann, M.P. Some new terpenoid metabolites from an unidentified fusarium species. *Tetrahedron* **25**(6), 1323-1334 (1969).
2. Mogi, T., Ui, H., Shiomi, K., et al. Antibiotics LL-Z1272 identified as novel inhibitors discriminating bacterial and mitochondrial quinol oxidases. *Biochim. Biophys. Acta* **1787**(2), 129-133 (2009).
3. Bal-Tembe, S., Kundu, S., Roy, K., et al. Activity of the illicolins against plant pathogenic fungi. *Pestic. Sci.* **55**(6), 645-647 (1999).
4. Subko, K., Kildgaard, S., Vicente, F., et al. Bioactive ascochlorin analogues from the marine-derived fungus *Stilbella fimetaria*. *Mar. Drugs* **19**(2), 46 (2021).
5. Hayakawa, S., Minato, H., and Katagiri, K. The illicolins, antibiotics from *Cylindrocladium illicicola*. *J. Antibiot. (Tokyo)* **24**(9), 653-654 (1971).

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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