

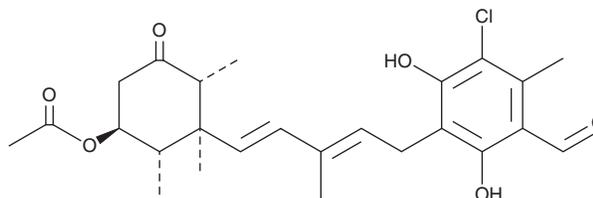
# PRODUCT INFORMATION



## Ilicicolin 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 1272ζ  
**MF:** C<sub>25</sub>H<sub>31</sub>ClO<sub>6</sub>  
**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

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

### Description

Ilicicolin F is a fungal metabolite that has been found in *Fusarium* and has diverse biological activities.<sup>1-3</sup> It inhibits *T. vivax* alternative oxidase and the *E. coli* ubiquinol oxidase cytochrome *bo* (IC<sub>50</sub>s = 0.43 and 0.37 μM, respectively) but not the *E. coli* ubiquinol oxidase cytochrome *bd* (IC<sub>50</sub> = 85 μM).<sup>2</sup> Ilicicolin F is active against the fungi *A. fumigatus* and *C. albicans* (MICs = 1.66-3.33 and 6.66-13.33 μg/ml, respectively).<sup>4</sup> It is cytotoxic to HeLa cells with an EC<sub>50</sub> value of 0.003 μg/ml.<sup>5</sup>

### 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 ilicicolins 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 ilicicolins, antibiotics from *Cylindrocladium ilicicola*. *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.

#### WARRANTY AND LIMITATION OF REMEDY

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#### 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