

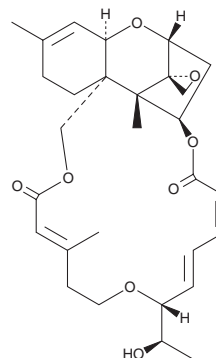
# PRODUCT INFORMATION



## Roridin E

Item No. 26955

**CAS Registry No.:** 16891-85-3  
**Formal Name:** (2'E,7'R)-2',3'-didehydro-7'-deoxy-2'-deoxy-7'-[(1R)-1-hydroxyethyl]-verrucarin A  
**MF:** C<sub>29</sub>H<sub>38</sub>O<sub>8</sub>  
**FW:** 514.6  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

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

### Description

Roridin E is a macrocyclic trichothecene mycotoxin that has been found in *M. verrucaria*.<sup>1</sup> It inhibits the receptor tyrosine kinases FGFR3, IGF-1R, PDGFRβ, and TrkB (IC<sub>50</sub>s = 0.4, 0.4, 1.4, and 1 μM, respectively).<sup>2</sup> Roridin E induces cytotoxicity in multiple breast cancer cell lines (IC<sub>50</sub>s = 0.02-0.05 nM) and inhibits proliferation in a panel of additional cancer cell lines (IC<sub>50</sub>s = <0.01 μM).<sup>2,3</sup> It also inhibits proliferation of the mammalian H4TG, MDCK, NIH3T3, and KA31T cell lines (IC<sub>50</sub>s = 1.74-7.68 nM).<sup>4</sup> Roridin E inhibits the growth of *P. falciparum* (EC<sub>50</sub> = 0.15 ng/ml), induces phytotoxicity in duckweed and kudzu, and is toxic to mice (LD<sub>50</sub> = 10 mg/kg, i.p.).<sup>1,5</sup> Roridin E is also produced by the plant *B. coridifolia*, which is associated with livestock poisoning in South America.<sup>5</sup>

### References

1. Isaka, M., Punya, J., Lertwerawat, Y., et al. Antimalarial activity of macrocyclic trichothecenes isolated from the fungus *Myrothecium verrucaria*. *J. Nat. Prod.* **62**(2), 329-331 (1999).
2. Li, Y., Liu, D., Cheng, Z., et al. Cytotoxic trichothecene-type sesquiterpenes from the sponge-derived fungus *Stachybotrys chartarum* with tyrosine kinase inhibition. *RSC Adv.* **7**(12), 7259-7267 (2017).
3. Lee, S.R., Seok, S., Ryoo, R., et al. Macrocyclic trichothecene mycotoxins from a deadly poisonous mushroom, *Podostroma cornu-damae*. *J. Nat. Prod.* **82**(1), 122-128 (2019).
4. Abbas, H.K., Johnson, B.B., Shier, W.T., et al. Phytotoxicity and mammalian cytotoxicity of macrocyclic trichothecene mycotoxins from *Myrothecium verrucaria*. *Phytochemistry* **59**(3), 309-313 (2002).
5. Habermehl, G.G., Busam, L., Heydel, P., et al. Macrocyclic trichothecenes: Cause of livestock poisoning by the Brazilian plant *Baccharis coridifolia*. *Toxicol.* **23**(5), 731-745 (1985).

#### 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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