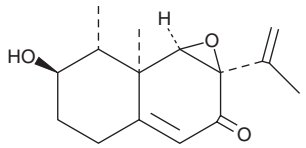
PRODUCT INFORMATION

Sporogen-AO 1

Item No. 29576

CAS Registry No.: 88418-12-6
Formal Name: (1aR,6R,7R,7aR,7bR)-4,5,6,7,7a,7b-hexahydro-6-hydroxy-7,7a-dimethyl-1a-(1-methylethenyl)-naphth[1,2-b]oxiren-2(1aH)-one
Synonym: (+)-Sporogen-AO 1
MF: $C_{15}H_{20}O_3$
FW: 248.3
Purity: ≥70%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/*Penicillium* sp.



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

Laboratory Procedures

Sporogen-AO 1 is supplied as a solid. A stock solution may be made by dissolving the sporogen-AO 1 in the solvent of choice, which should be purged with an inert gas. Sporogen-AO 1 is soluble in organic solvents such as ethanol, methanol, dichloromethane, and DMSO.

Description

Sporogen-AO 1 is a fungal metabolite originally isolated from *A. oryzae* that has diverse biological activities.[1-5] It inhibits HIV-1 Tat transactivation in a cell-based assay with an IC_{50} value of 15.8 µM.[4] Sporogen-AO 1 is cytotoxic to HeLa, KB, and NCI H187 cancer cells (IC_{50}s = 8.3, 9, and 5.1 µM, respectively).[2,5] It is active against *C. albicans* (MIC = 4 mM).[3]

References

1. Tanaka, S., Wada, K., Marumo, S., *et al.* Structure of sporogen-ao 1, a sporogenic substance of *Aspergillus oryzae*. *Tetrahedron Lett.* **25(51)**, 5907-5910 (1984).
2. Motohashi, K., Hashimoto, J., Inaba, S., *et al.* New sesquiterpenes, JBIR-27 and -28, isolated from a tunicate-derived fungus, *Penicillium* sp. SS080624SCf1. *J. Antibiot. (Tokyo)* **62(5)**, 247-250 (2009).
3. Yurchenko, A., Smetanina, O.F., Kalinovsky, A., *et al.* Biologically active metabolites of the facultative marine fungus *Penicillium citrinum*. *Chem. Nat. Compd.* **48(6)**, 996-998 (2013).
4. Jayasuriya, H., Zink, D.L., Polishook, J.D., *et al.* Identification of diverse microbial metabolites as potent inhibitors of HIV-1 Tat transactivation. *Chem. Biodivers.* **2(1)**, 112-122 (2005).
5. Tansakul, C., Rukachaisirikul, V., Chalothorn, T., *et al.* Synthesis and cytotoxicity against KB and NCI-H187 cell lines of sporogen AO-1 analogues. *Phytochem. Lett.* **22**, 128-132 (2017).

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