

PRODUCT INFORMATION



PF-1163A

Item No. 22065

CAS Registry No.: 258871-59-9
Formal Name: (3S,10R,13S)-3-[[4-(2-hydroxyethoxy)phenyl]methyl]-13-[(2S)-2-hydroxypentyl]-4,10-dimethyl-1-oxa-4-azacyclotridecane-2,5-dione

MF: C₂₇H₄₃NO₆

FW: 477.6

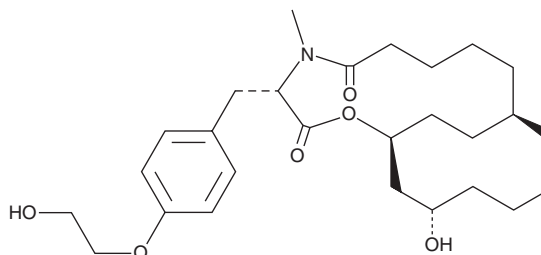
Purity: ≥95%

Supplied as: An oil

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

PF1163A is supplied as an oil. A stock solution may be made by dissolving the PF1163A in the solvent of choice, which should be purged with an inert gas. PF1163A is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

PF-1163A is a depsipeptide antifungal isolated from *Penicillium* that inhibits ergosterol synthesis (IC₅₀ = 12 ng/ml).^{1,2} In *S. cerevisiae* transfected with ERG biosynthesis genes, PF-1163 inhibits ERG25p, a C-4 methyl oxidase in the ERG biosynthetic pathway, with a MIC value of 12.5 µg/ml, while a strain overexpressing ERG25p is resistant.³ It inhibits growth of *C. albicans* (MIC = 8 µg/ml) but not of other *Candida* strains, *A. fumigatus*, or HepG2 cells.¹ It also acts synergistically with fluconazole (Item No. 11594) to reduce growth of azole-resistant *C. albicans* (MICs = 1 and 0.0078 µg/ml alone and in combination, respectively).⁴ PF-1163A is a more polar form of PF-1163B (Item No. 22066).

References

1. Nose, H., Seki, A., Yaquchi, T., *et al.* PF1163A and B, new antifungal antibiotics produced by *Penicillium sp. I*. Taxonomy of producing strain, fermentation, isolation and biological activities. *J. Antibiot. (Tokyo)* **53(1)**, 33-37 (2000).
2. Sasaki, T., Nose, H., Hosoya, A., *et al.* PF1163A and B, new antifungal antibiotics produced by *Penicillium sp. II*. Physico-chemical properties and structure elucidation. *J. Antibiot. (Tokyo)* **53(1)**, 38-44 (2000).
3. Nose, H., Fushimi, H., Seki, A., *et al.* PF1163A, a novel antifungal agent, inhibit ergosterol biosynthesis at C-4 sterol methyl oxidase. *J. Antibiot. (Tokyo)* **55(11)**, 969-974 (2002).
4. Okabe, M., Sugita, T., Kinoshita, K., *et al.* Macrolides from a marine-derived fungus, *Penicillium meleagrinum var. viridiflavum*, showing synergistic effects with fluconazole against azole-resistant *Candida albicans*. *J. Nat. Prod.* **79(4)**, 1208-1212 (2016).

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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