

Product Datasheet

PF-1163A (orb2299214)

Description

PF-1163A, a depsipeptide antifungal compound isolated from *Penicillium*, blocks ergosterol synthesis with an IC₅₀ of 12 ng/ml. This compound specifically inhibits the enzyme ERG25p, a C-4 methyl oxidase in the ergosterol biosynthetic pathway, leading to its antifungal activity. Notably, in *Saccharomyces cerevisiae* modified to express ERG biosynthesis genes, PF-1163A exhibits an inhibition concentration (MIC value) of 12.5 µg/ml against ERG25p, though strains overexpressing ERG25p show resistance. Additionally, PF-1163A effectively suppresses the growth of *Candida albicans* (MIC = 8 µg/ml), without affecting other *Candida* species, *Aspergillus fumigatus*, or HepG2 cells. Remarkably, it enhances the efficacy of fluconazole against azole-resistant *C. albicans* strains, showing a significant decrease in MICs (1 and 0.0078 µg/ml alone and in combination, respectively). PF-1163A distinguishes itself from PF-1163B by its more polar nature.

Storage

-20°C

Note

For research use only

Formula

C₂₇H₄₃NO₆

Purity

98.00%

MW

477.6

CAS Number

258871-59-9

SMILES

C([C@H]1C(=O)O[C@H](C[C@H](CCC)O)CC[C@H](C)CCCCC(=O)N1C)C2=CC=C(OCCO)C=C2

Expiration Date

12 months from date of receipt.

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