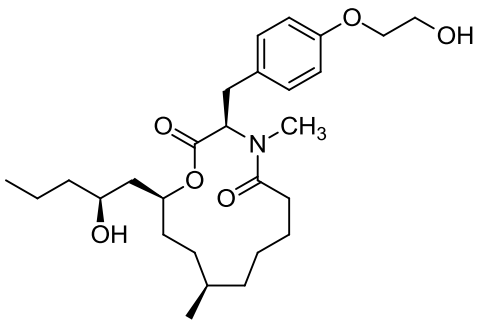
bioaustralis
fine chemicals

PRODUCT DATA SHEET

PF1163A

Code No.: **BIA-P1703**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

Specifications

CAS #	:	**258871-59-9**
Molecular Formula	:	**$C_{27}H_{43}NO_6$**
Molecular Weight	:	**477.6**
Source	:	**Unidentified fungus**
Appearance	:	**Brown oil**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

PF1163A is an unusual 13-membered depsipeptide isolated from an undescribed species of Pencillium by researchers at Meiji Seika Kaisha and reported in 2000 as an antifungal active. The macrocycle of PF1163A comprises a modified N-methyltyrosine conjugated with a 9-hydroxytetradecanoic acid. The total synthesis and absolute stereochemistry were reported in 2014. PF1163A is a selective antifungal agent with low mammalian toxicity. PF1163A acts on ergosterol biosynthesis, inhibiting C-4 sterol methyl oxidase, and acts synergistically with fluconazole against azole resistant Candida albicans.

References

1. PF1163A and B, new antifungal antibiotics produced by Penicillium sp. I. Taxonomy of producing strain, fermentation, isolation and biological activities. Hiroshi N. et al., J. Antibiot. 2000, 53, 33.
2. PF1163A and B, new antifungal antibiotics produced by Penicillium sp. Part II. Physico-chemical properties and structure elucidation. Sasaki T. et al., J. Antibiot. 2000, 53, 38.
3. PF1163A, a novel antifungal agent, inhibits ergosterol biosynthesis at C-4 sterol methyl oxidase. Nose H. et al., J. Antibiot. 2002, 55, 969.
4. The stereoselective total synthesis of PF1163A. Kumar H., Tet. Lett. 2014, 55, 1519.
5. Macrolides from a marine-derived fungus, Penicillium meleagrinum var. viridiflavum, showing synergistic effects with fluconazole against azole-resistant Candida albicans. Okabe M., J. Nat. Prod. 2016, 79, 1208.

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