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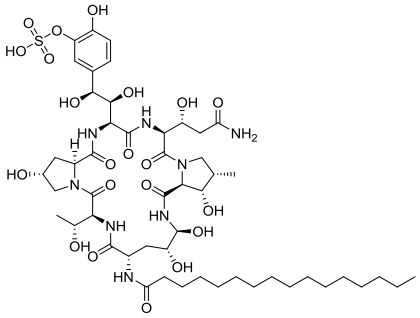
PRODUCT DATA SHEET

FR 901379

Code No.: **BIA-F1790**

Pack sizes: **1 mg, 5 mg**



Synonyms : WF11899A

Specifications

CAS #	:	**144371-88-0**
Molecular Formula	:	**$C_{51}H_{82}N_8O_{21}S$**
Molecular Weight	:	**1175.3**
Source	:	***Aspergillus* sp.**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

FR 901379 is a pneumocandin belonging to the echinocandin class of cyclic lipopeptides produced by Coleophoma empetri F-11899, discovered as antifungals and patented in 1991 by Ueda and colleagues. FR 901379 inhibits the synthesis of 1,3-β-D-glucan in the fungal cell wall. The sulfonic acid confers water solubility, a limitation with other echinocandins. Unfortunately, FR 901379 was also haemolytic, this limitation being overcome by selective hydrolysis using a cyclic lipopeptide acylase to yield FR 179642, the starting material for production of the commercial antifungal, micafungin.

References

1. 1. WF11899A, B and C, novel antifungal lipopeptides. I. Taxonomy, fermentation, 1.2. isolation and physico-chemical properties. IwamotoT. et al., J. Antibiot. 1994, 47, 1084.
2. Preparation of cyclic peptide (echinocandin B) antibiotics. Toshiro I. et al., EP 462531 A2, 1991.
3. Screening and characterization of microorganisms with FR 901379 acylase activity. Ueda S. et al., J. Antibiot. 1992, 63, 605.
4. Novel echinocandin antifungals. Part 1: Novel side-chain analogs of the natural product FR901379. Tomishima M. et al., Bioorg. Med. Chem. Letters 2008, 18, 1474.
5. Improvement of FR901379 production by mutant selection and and medium optimimization. Kanda M. et al., J. BioSci. Bioeng. 2009, 107, 530.

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