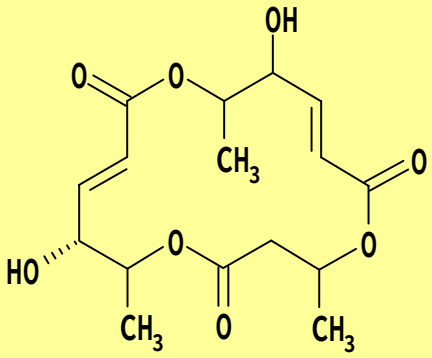
Macrosphelide A

Cat.# BLK0470

Structure



Origin: *Paraconiothyrium sporulosum* strain FO-5050

CAS Registry Number: 172923-77-2

CA Index Name: (4S,7*E*,13*E*)-4α,10α,16α-Trimethyl-9β,15β-dihydroxy-1,5,11-trioxa-7,13-cyclohexadecadiene-2,6,12-trione

Appearance: white solid

Molecular Formula/ Weight: $C_{16}H_{22}O_8$=342.35

Melting Point: 146-149℃ **Purity:** >98% by HPLC

Solubility: Sol. MeOH, Chloroform, EtOAc, DMSO, Dimethyl Ether
Inso. water, Hexane

Background Information:

Macrosphelide A, which is a macrolide antibiotic, was isolated from *Microsphaeropsis* sp. FO-5050[1)] and *Coniothyrium minitans*[2)]. *C. minitans* is a mycoparasite of sclerotia of *Sclerotinia sclerotiorum* and *Sclerotium cepivorum*. Macrosphelide A is a novel inhibitor of cell-cell adhesion molecule[1, 3)]. In addition, macrosphelide A showed antifungal activity against *S. sclerotiorum* and *S. cepivorum*[2)]. Recently, it has been reported that macrosphelide A also was showed antimicrobial activity against *Bacillus thuringiensis, Staphylococcus aureus* and *Lepista nuda*[4)].

Handling and Storage:

Store at -20℃.

References:

1. M. Hayashi, et. al., J. Antibiot (Tokyo). **48**, 1435-1439 (1995).
2. M. P. McQuilken, et. al., FEMS Microbiol. Lett. **219**, 27-31 (2003).
3. S. Takamatsu, et. al., J. Antibiot (Tokyo). **49**, 95-98 (1996).
4. N. Tomprefa, et. al., J. Appl. Microbiol. **106**, 2048-2056 (2009).

Manufactured with Cortesy strain from The Kitasato Institute.