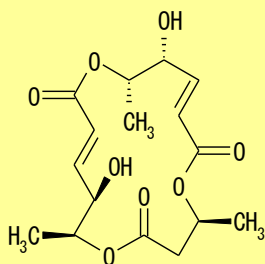


# Macrosphelide A

Cat.# BLK0470

## Structure



Macrosphelide A

**Origin:** *Paraconiothyrium sporulosum* strain FO-5050

**CAS Registry Number:** 172923-77-2

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

**Appearance:** white solid

**Molecular Formula/ Weight:** C<sub>16</sub>H<sub>22</sub>O<sub>8</sub>=342.35

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

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

**pKa:** **log P:**

## Background Information:

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

## Handling and Storage:

Store at -20°C.

## 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.

(ID#: FO-5050)