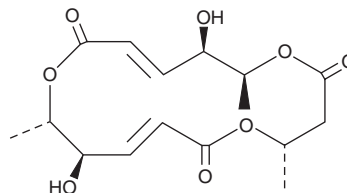


PRODUCT INFORMATION

(+)-Macrosphelide A

Item No. 27704

CAS Registry No.: 172923-77-2
 Formal Name: 9R,15R-dihydroxy-4S,10S,16S-trimethyl-1,5,11-trioxacyclohexadeca-7E,13E-diene-2,6,12-trione
 MF: $C_{16}H_{22}O_8$
 FW: 342.3
 Purity: $\geq 95\%$
 Supplied as: A solid
 Storage: -20°C
 Stability: ≥ 2 years
 Item Origin: Fungi/*Paraconiothyrium sporulosum* FO-5050



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(+)-Macrosphelide A is supplied as a solid. A stock solution may be made by dissolving the (+)-macrosphelide A in the solvent of choice. (+)-Macrosphelide A is soluble in organic solvents such as methanol, chloroform, and DMSO, which should be purged with an inert gas.

Description

(+)-Macrosphelide A is a fungal metabolite originally isolated from *Microspheeropsis*.¹ It inhibits adhesion of HL-60 human leukemia cells to human umbilical vein endothelial cells (HUVECs) in a concentration-dependent manner. It also inhibits the growth of SKOV3 ovarian cancer cells in a concentration-dependent manner.² (+)-Macrosphelide A inhibits the growth of Gram-positive bacteria, including *B. subtilis*, *M. luteus*, *B. thuringiensis*, and *S. aureus* (MICs = 143, 143, 57, and 57 $\mu\text{g/ml}$, respectively), but not Gram-negative bacteria or fungi.³

References

1. Ono, M., Nakamura, H., Konno, F., *et al.* Total syntheses of macrosphelides (+)-A, (-)-A and (+)-E. *Tetrahedron-Asymmetr.* **11**(13), 2753-2764 (2000).
2. Heo, Y.M., Lee, H., Shin, Y.K., *et al.* Development of an advanced synthetic route to macrosphelides and its application to the discovery of a more potent macrosphelide derivative. *Molecules* **19**(10), 15572-15583 (2014).
4. Tomprefa, N., McQuilken, M.P., Hill, R.A., *et al.* Antimicrobial activity of *Coniothyrium minitans* and its macrolide antibiotic macrosphelide A. *J. Appl. Microbiol.* **106**(6), 2048-2056 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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