

# PRODUCT INFORMATION



## IKD-8344

Item No. 28194

**CAS Registry No.:** 129046-69-1  
**Formal Name:** (1R,2R,5S,8S,9S,12R,14S,17R,18R,21S,24S,25S,28R,30S)-rel-2,9,18,25-tetramethyl-12,28-bis[(1S)-1-[(2S,5R)-tetrahydro-5-methyl-2-furanyl]ethyl]-11,27,33,34,35,36-hexaoxapentacyclo[28.2.1.1<sup>5,8</sup>.1<sup>14,17</sup>.1<sup>21,24</sup>]hexatriacontane-3,10,19,26-tetrone

**MF:** C<sub>48</sub>H<sub>76</sub>O<sub>12</sub>  
**FW:** 845.1

**Purity:** ≥70%

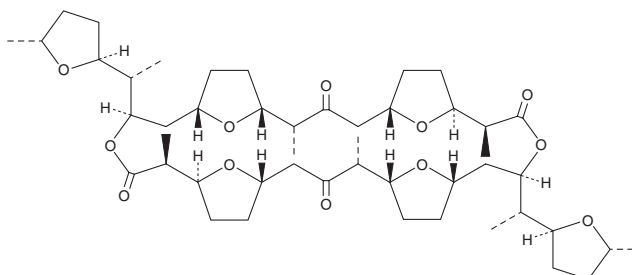
**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Bacterium/*Spirillospora* sp.

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



### Laboratory Procedures

IKD-8344 is supplied as a solid. A stock solution may be made by dissolving the IKD-8344 in the solvent of choice, which should be purged with an inert gas. IKD-8344 is soluble in organic solvents such as ethanol, methanol, and DMSO.

### Description

IKD-8344 is a macrocyclic dilactone originally isolated from an actinomycete species and has diverse biological activities, including anticancer, antimicrobial, and anthelmintic properties.<sup>1-3</sup> It is cytotoxic to L5178Y murine leukemia cells (IC<sub>50</sub> = 0.54 ng/ml).<sup>1</sup> IKD-8344 inhibits growth of the mycelial form of *C. albicans* (MIC = 6.25 µg/ml) and potentiates the activity of polymyxin B (Item No. 14157) against the multidrug-resistant pathogenic bacterium *B. cenocepacia*.<sup>2,3</sup> It is active against *T. spiralis* *in vitro* and *in vivo*.<sup>1</sup>

### References

1. Minami, Y., Yoshida, K., Azuma, R., *et al.* Structure of a Novel Macrolide Antibiotic IKD-8344. *Tetrahedron Lett.* **33(48)**, 7373-7376 (1992).
2. Hwang, E.I., Yun, B.S., Yeo, W.H., *et al.* Compound IKD-8344, a selective growth inhibitor against the mycelial form of *Candida albicans*, isolated from *Streptomyces* sp. A6792. *J. Microbiol. Biotechnol.* **15(4)**, 909-912 (2005).
3. Loutet, S.A., El-Halfawy, O.M., Jassem, A.N., *et al.* Identification of synergists that potentiate the action of polymyxin B against *Burkholderia cenocepacia*. *Int. J. Antimicrob. Agents* **46(4)**, 376-380 (2015).

#### 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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