

Myriocin PRODUCT DATA SHEET

issue date 01/06/2020

Product Name: Myriocin

Product Number: M045

CAS Number: 35891-70-4
Molecular Formula: C₂₁H₃₉NO₆

Molecular Weight: 401.5

Appearance: Off-white to grey powder

Storage Conditions: -20°C

Description: Myriocin is an α-amino fatty acid derived from several genera of fungi, notably

Myriococcum, Melanconis and Isaria.

Myriocin is soluble in ethanol, methanol, DMF or DMSO. Limited water

solubility.

Mechanism of Action: Myriocin potently inhibits sphingosine biosynthesis by blocking the first enzyme

in the pathway, serine palmitoyltransferase. Myriocin induces apoptosis by depleting cellular sphingolipids, inhibits proliferation of IL-2-dependent mouse

cytotoxic cells and is a potent immunosuppressant.

References: Myriocin, a new antifungal antibiotic from Myriococcum albomyces. Kluepfel D.

J. Antibiot. 1972, 25, 109.

Serine palmitoyltransferase is the primary target of a sphingosine-like

immunosuppressant, ISP-1/myriocin. Miyake Y. et al., Biochem. Biophys. Res.

Commun. 1995, 211, 396.

Fungal metabolites. Part 12. Potent immunosuppressant, 14-deoxomyriocin, (2S,3R,4R)-(E)-2-amino-3,4-dihydroxy-2-hydroxymethyleicos-6-enoic acid and structure-activity relationships of myriocin derivatives. Fujita T. et al., J. Biol.

Chem. 2005, 280, 10284.

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