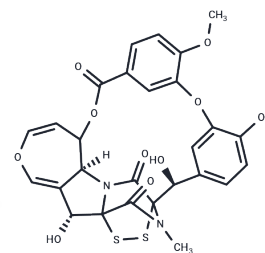


Emestrin

Chemical Properties

CAS No. :	97816-62-1
Formula:	C ₂₇ H ₂₂ N ₂ O ₁₀ S ₂
Molecular Weight:	598.6
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Emestrin, a mycotoxin originally isolated from <i>E. striata</i> , exhibits antimicrobial, immunomodulatory, and cytotoxic activities. It is effective against fungi <i>C. albicans</i> and <i>C. neoformans</i> , and bacteria <i>E. coli</i> , <i>S. aureus</i> , and methicillin-resistant <i>S. aureus</i> (MRSA; IC ₅₀ s = 3.94, 0.6, 2.21, 4.55, and 2.21 µg/ml, respectively). Emestrin acts as a chemokine (C-C motif) receptor 2 (CCR2) antagonist (IC ₅₀ = 5.4 µM in a radioligand binding assay using isolated human monocytes). At 0.1 µg/ml, it induces apoptosis in HL-60 cells and causes necrosis in heart, thymus, and liver tissues in mice at doses of 18-30 mg/kg.
Targets(IC ₅₀)	Others,Antibacterial

Solubility Information

Solubility	Methanol: Soluble Ethanol: Soluble DMSO: Soluble DMF: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6706 mL	8.3528 mL	16.7056 mL
5 mM	0.3341 mL	1.6706 mL	3.3411 mL
10 mM	0.1671 mL	0.8353 mL	1.6706 mL
50 mM	0.0334 mL	0.1671 mL	0.3341 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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- Herath, H.M.T.B., Jacob, M., Wilson, A.D., et al. New secondary metabolites from bioactive extracts of the fungus *Armillaria tabescens*. *Nat. Prod. Res.* 27(17), 1562-1568 (2013).
- Herath, K.B., Jayasuriya, H., Ondeyka, J.G., et al. Isolation and structures of novel fungal metabolites as chemokine receptor (CCR2) antagonists. *J. Antibiot. (Tokyo)* 58(11), 686-694 (2005).
- Ueno, Y., Umemori, K., Niimi, E.-c., et al. Induction of apoptosis by T-2 toxin and other natural toxins in HL-60 human promyelotic leukemia cells. *Nat. Toxins* 3(3), 129-137 (1995).
- Terao, K., Ito, E., Kawai, K.-i., et al. Experimental acute poisoning in mice induced by emestrin, a new mycotoxin isolated from *Emericella* species. *Mycopathologia* 112(2), 71-79 (1990).

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