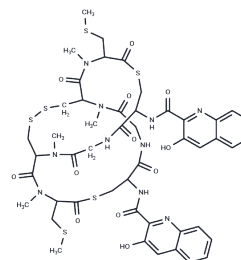


Thiocoraline

Chemical Properties

CAS No. : 173046-02-1
 Formula: C₄₈H₅₆N₁₀O₁₂S₆
 Molecular Weight: 1157.39
 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	Thiocoraline is a depsipeptide and DNAbis-intercalator originally isolated from <i>Micromonospora</i> with antibacterial and anticancer activities. ^{1,2} It is active against the Gram-positive bacteria <i>S. aureus</i> , <i>B. subtilis</i> , and <i>M. luteus</i> (MICs = 0.05, 0.05, and 0.03 µg/ml, respectively) but not Gram-negative <i>E. coli</i> , <i>K. pneumoniae</i> , or <i>P. aeruginosa</i> (MICs = >100 µg/ml for all). ¹ Thiocoraline inhibits RNA and DNA polymerase and thymidylate synthase (IC ₅₀ s = 6, 6, and 15 µg/ml, respectively), as well as RNA and DNA synthesis <i>in vitro</i> (IC ₅₀ s = 0.008 and 0.4 µg/ml, respectively). It is cytotoxic to P388, A549, HT-29, and MEL-28 cancer cells (IC ₅₀ s = 0.002, 0.002, 0.01, and 0.002 µg/ml, respectively).
Targets(IC ₅₀)	Others, Antibacterial

Solubility Information

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

	1mg	5mg	10mg
1 mM	0.864 mL	4.3201 mL	8.6401 mL
5 mM	0.1728 mL	0.864 mL	1.728 mL
10 mM	0.0864 mL	0.432 mL	0.864 mL
50 mM	0.0173 mL	0.0864 mL	0.1728 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

Romero, F., Espilego, F., Pérez Baz, J., et al. Thiocoraline, a new depsipeptide with antitumor activity produced by a marine Micromonospora. I. Taxonomy, fermentation, isolation, and biological activities. *Antibiot. (Tokyo)* 50(9) 734-737(1997)

Negri, A., Marco, E., García-Hernández, V., et al. Antitumor activity, X-ray crystal structure, and DNA binding properties of thiocoraline A, a natural bisintercalating thiodepsipeptide. *Med. Chem.* 50(14)3322-3333(2007)

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