

PRODUCT INFORMATION



Thiocillin I

Item No. 26681

CAS Registry No.: 59979-01-0

Formal Name: 2'-[(11S,14Z,21S,28S)-14-ethylidene-9,10,11,12,13,14,20,21,27,28-decahydro-11,28-bis[(1R)-1-hydroxyethyl]-21-(1-hydroxy-1-methylethyl)-9,12,19,26-tetraoxo-19H,26H-8,5:18,15:25,22:32,29-tetranitrilo-5H,15H-pyrido[3,2-*m*][1,11,17,24,4,7,20,27]tetrathiatetraazacyclotriacontin-2-yl]-N-[(1Z)-1-[[[(2R)-2-hydroxypropyl]amino]carbonyl]-1-propen-1-yl]-[2,4'-bithiazole]-4-carboxamide
44-O-Demethylthiocillin I

Synonym:

MF: $C_{48}H_{49}N_{13}O_{10}S_6$

FW: 1,160.4

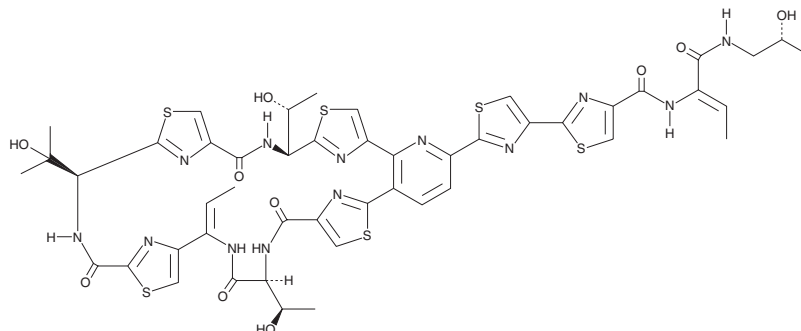
Purity: $\geq 85\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Bacterium/*Bacillus* sp.



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

Laboratory Procedures

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

Description

Thiocillin I is an antibiotic originally isolated from *Bacillus* that has activity against Gram-positive, but not Gram-negative, bacteria.¹ It inhibits the growth of *B. subtilis*, *B. anthracis*, *S. aureus*, *S. pyogenes*, and *S. pneumoniae* strains *in vitro* (MICs = 0.2-3.13 $\mu\text{g/ml}$). Thiocillin I exhibits antibiotic activity in a mouse model of *S. pyogenes* infection (ED_{50} = 2.91 mg/kg).

Reference

1. Shoji, J., Hinoo, H., Wakisaka, Y., *et al.* Isolation of three new antibiotics, thiocillins I, II and III, related to micrococcin P. Studies on antibiotics from the genus *Bacillus*. VIII. *J. Antibiot. (Tokyo)* **29(4)**, 366-374 (1976).

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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