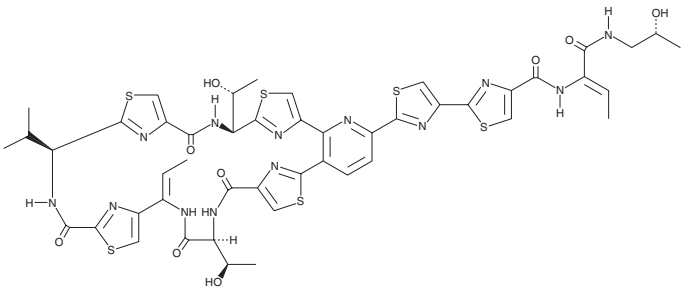
# PRODUCT INFORMATION

## Micrococcin P1

*Item No. 17093*

**CAS Registry No.:** 67401-56-3
**Formal Name:** 2'-[(11S,14Z,21S,28S)-14-ethylidene-9,10,11,12,13,14,20,21,27,28-decahydro-28-[(1R)-1-hydroxyethyl]-11-[(1R)-1-hydroxyethyl]-21-(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
**MF:** $C_{48}H_{49}N_{13}O_9S_6$
**FW:** 1,144.4
**Purity:** ≥95%
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years



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

### Laboratory Procedures

Micrococcin P1 is supplied as a solid. A stock solution may be made by dissolving the micrococcin P1 in the solvent of choice. Micrococcin P1 is soluble in organic solvents such as ethanol, DMSO, dimethyl formamide, and methanol which should be purged with an inert gas.

Micrococcin P1 is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

Micrococcin P1 is a macrocyclic peptide antibiotic that functions as an acceptor-site-specific inhibitor of ribosomal protein synthesis, effectively preventing the growth of Gram-positive bacteria without affecting that of Gram-negative bacteria.[1,2]

### References


1. Carnio, M.C., Hötzel, A., Rudolf, M., *et al.* The macrocyclic peptide antibiotic micrococcin P(1) is secreted by the food-borne bacterium *Staphylococcus equorum* WS 2733 and inhibits *Listeria monocytogenes* on soft cheese. *Appl. Environ. Microbiol.* **66(6)**, 2378-2384 (2000).
2. Mikolajka, A., Liu, H., Chen, Y., *et al.* Differential effects of thiopeptide and orthosomycin antibiotics on translational GTPases. *Chem. Biol.* **18(5)**, 589-600 (2011).





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