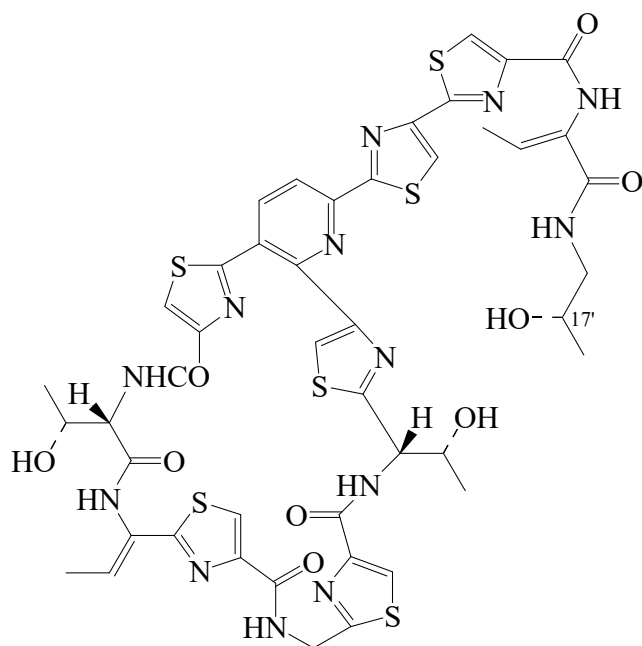




>>Entry Name: Micrococcin P₁



CAS Registry Number: 67401-56-3

Related CAS Registry Numbers(s): 1392-46-7

Molecular Formula: C₄₈H₄₉N₁₃O₉S₆

Molecular Weight: 1144.393

Accurate Mass: 1143.210042

Percentage Composition: C 50.38%; H 4.32%; N 15.91%; O 12.58%; S 16.81%

Biological Source: Isol. from *Bacillus pumilus*

Biological Use/Importance: Peptide antibiotic. Shows broad spectrum *in vitro* activity

Physical Description: Cryst.

Melting Point: Mp 252 dec.°

Optical Rotation: $[\alpha]_D^{21} +116$ (c, 0.10 in 90% EtOH aq.)

Solubility: Sol. MeOH, Py, CHCl₃, EtOH, Me₂CO, EtOH; poorly sol. H₂O, C₆H₆, Et₂O, EtOAc, hexane

UV: [neutral] $\lambda_{\max}$ 344 () (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 346 (E1%/1cm 210) (EtOH) (Berdy) [acid] $\lambda_{\max}$ 320 (ϵ 57500) (HCl) (Berdy)

Other Data: Major component of Micrococcin P complex. Similar to Thiocillin I [CJN27-E](#)

Hazard & Toxicity: LD₅₀ (mus, scu) 1500 mg/kg

>>Derivative: 17'-Ketone

Synonym(s): Micrococcin P₂

CAS Registry Number: 67401-55-2

Molecular Formula: C₄₈H₄₇N₁₃O₉S₆

Molecular Weight: 1142.377

Accurate Mass: 1141.194392

Percentage Composition: C 50.47%; H 4.15%; N 15.94%; O 12.60%; S 16.84%

Biological Source: From *Bacillus pumilus*

UV: [neutral] $\lambda_{\max}$ 345 () (EtOH) (Berdy)

References:

- Fuller, A.T., *Nature (London)*, 1955, **175**, 722, (*isol*)
Pestka, S., *Antibiotics (N.Y.)*, 1975, **3**, 480, (*rev*)
Walker, J. *et al.*, *Chem. Comm.*, 1977, 706-708, (*cmr*)
Bycroft, B.W. *et al.*, *Chem. Comm.*, 1978, 256, (*struct, pmr, cmr, biosynth*)
Kelly, T.R. *et al.*, *Tet. Lett.*, 1991, **32**, 4263, (*synth*)
Shin, C.-G. *et al.*, *Chem. Lett.*, 1998, 139-140, (*synth*)
Okumura, K. *et al.*, *Bull. Chem. Soc. Jpn.*, 1999, **72**, 1561-1569; 2483-2490, (*synth, pmr, cmr*)
Ciufolini, M. *et al.*, *Org. Lett.*, 1999, **1**, 1843-1846, (*struct*)