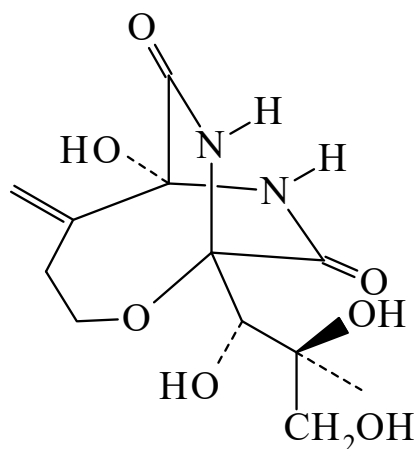




>>Entry Name: Bicyclomycin, 9CI

Synonym(s): 8,10-Diaza-6-hydroxy-5-methylene-1-(2-methyl-1,2,3-trihydroxypropyl)-2-oxabicyclo[4.2.2]decane-7,9-dione. **Bicozamycin**, INN. Aizumycin. Bacteron. CGP 3543 E. WS 4545. Antibiotic 5879. Antibiotic WS 4545



CAS Registry Number: 38129-37-2

Molecular Formula: C₁₂H₁₈N₂O₇

Molecular Weight: 302.283

Accurate Mass: 302.111403

Percentage Composition: C 47.68%; H 6.00%; N 9.27%; O 37.05%

General Statement: Diketopiperazine antibiotic

Biological Source: Isol. from *Streptomyces saprodonensis*, *Streptomyces griseoflavus*, and *Streptomyces aizunensis*

Use/Importance: Growth stimulant for chickens and swine. Used commercially. Antiinfective agent for gut infections

Physical Description: Rhombic cryst. (MeOH/Me₂CO) or monoclinic cryst. (EtOH)

Melting Point: Mp 187-189 dec.°. Mp 188-191 dec.° (dimorph.)

Optical Rotation: [α]_D²³ +63.5 (c, 1 in MeOH)

Calculated Log P Data: Log P -2.7 (calc)

UV: [neutral] $\lambda_{\max}$ 0 (end) (ϵ) (MeOH) (Derep)

Other Data: Weakly basic substance unstable in alkaline soln.

Hazard & Toxicity: LD₅₀ (mus, ipr) 500 mg/kg

>>Variant: (±)-form

CAS Registry Number: 89362-24-3

Molecular Formula: C₁₂H₁₈N₂O₇

Molecular Weight: 302.283

Accurate Mass: 302.111403

Percentage Composition: C 47.68%; H 6.00%; N 9.27%; O 37.05%

Melting Point: Mp 166-170°

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