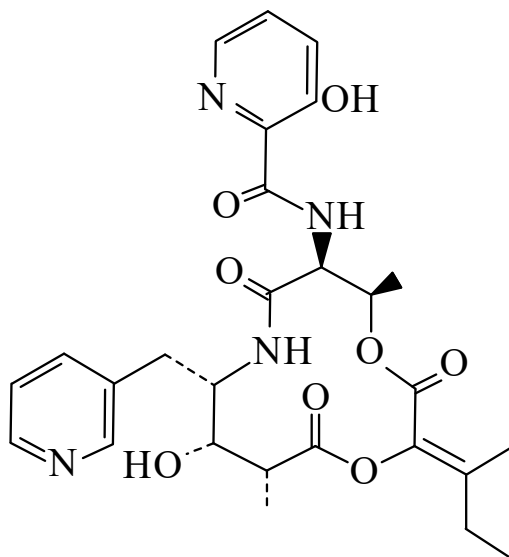




>>Entry Name: Pyridomycin

Synonym(s): 3-Hydroxy-*N*-[10-hydroxy-5,11-dimethyl-2-(1-methylpropylidene)-3,7,12-trioxo-9-(3-pyridylmethyl)-1,4-dioxo-8-azacyclododec-6-yl]-2-pyridinecarboxamide, 9Cl. U 24544. Antibiotic U 24544. Erizomycin



CAS Registry Number: 18791-21-4

Extra CAS Registry Numbers(s): 11052-02-1

Molecular Formula: C₂₇H₃₂N₄O₈

Molecular Weight: 540.572

Accurate Mass: 540.222016

Percentage Composition: C 59.99%; H 5.97%; N 10.36%; O 23.68%

Biological Source: Produced by *Streptomyces pyridomyceticus*, *Streptomyces griseus* var. *erizensis* and *Streptomyces albidofuscus*

Use/Importance: Inhibits the growth of mycobacteria and some gram-negative bacteria. Cytotoxic to mammalian cell cultures

Physical Description: Needles (EtOH)

Melting Point: Mp 221-222°

Optical Rotation: [α]_D²⁵ -82 (c, 1.35 in EtOH)

Solubility: BERDY SOL: Sol. MeOH, CHCl₃; fairly sol. Et₂O; poorly sol. H₂O, hexane

UV: [acid] $\lambda_{\max}$ 227 (ϵ 35000); 303 (ϵ 13500) (0.1*N* HCl) (Derep) [base] $\lambda_{\max}$ 226 (ϵ 36000); 303 (ϵ 17900); 331 (ϵ 8960) (0.1*N* NaOH) (Derep) [neutral] $\lambda_{\max}$ 303 (ϵ 11300) (EtOH) (Derep) [neutral] $\lambda_{\max}$ 264 (E1%/1cm 92); 270 (E1%/1cm 80); 305 (E1%/1cm 177) (EtOH) (Berdy) [acid] $\lambda_{\max}$ 227 (E1%/1cm 505); 304 (E1%/1cm 250) (EtOH-HCl) (Berdy) [base] $\lambda_{\max}$ 226 (E1%/1cm 669); 303 (E1%/1cm 332); 331 (E1%/1cm 166) (EtOH-NaOH) (Berdy)

Other Data: $\lambda_{\max}$ 221, 255 sh, 262, 269, 303 nm(EtOH)

Hazard & Toxicity: LD₅₀ (mus, orl) 1000 mg/kg ; BERDY HAZD : LD₅₀ (mus, ivn) 300 mg/kg , LD₅₀ (mus, orl) 1000 mg/kg

>>Derivative: Hydrochloride

Physical Description: Cryst.

Melting Point: Mp 194-196°

Optical Rotation: [α]_D¹⁶ -53.2 (H₂O)

>>Derivative: Hydrobromide (1:2)

Physical Description: Cryst. + H₂O (EtOAc)

Melting Point: Mp 203-205 dec.°

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