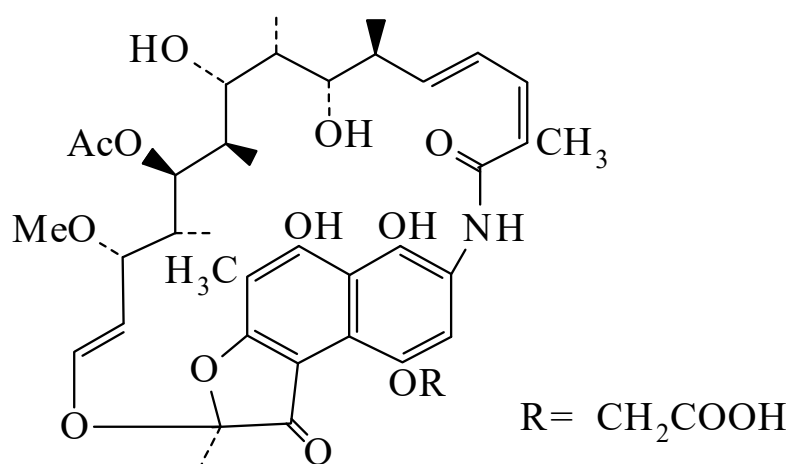




>>Entry Name: Rifamycin B

Synonym(s): 4-*O*-(Carboxymethyl)rifamycin, 9Cl. Nancimycin. Rifomycin B



CAS Registry Number: 13929-35-6

Molecular Formula: C₃₉H₄₉NO₁₄

Molecular Weight: 755.814

Accurate Mass: 755.315309

Percentage Composition: C 61.98%; H 6.53%; N 1.85%; O 29.64%

Source/Synthesis: Isol. from *Streptomyces mediterranei*, *Streptomyces tolypophorus* and *Nocardia* sp.

Use/Importance: Antibacterial agent. Active against gram-positive bacteria, primarily mycobacteria

Physical Description: Pale-yellow needles (C₆H₆/hexane)

Melting Point: Mp 300° (160-164° dec.)

Optical Rotation: [α]_D²⁰ -48.7 (c, 0.4 in MeOH)

Solubility: Sol. MeOH, CHCl₃, Me₂CO, EtOAc

pKa Value: pK_{a1} 2.6; pK_{a2} 6.7

UV: [acid] $\lambda_{\max}$ (solvent not reported) (Derep) [base] $\lambda_{\max}$ (solvent not reported) (Derep) [neutral] $\lambda_{\max}$ 224 (ϵ 42000); 305 (ϵ 20800); 428 (ϵ 17400) (MeOH/pH 7.3) (Derep)

Other Data: Oxidn. → Rifamycin O

Hazard & Toxicity: LD₅₀ (rat, ivn) 1680 mg/kg

Fluka: 83906

Sigma: R7633

>>Derivative: Diethylamide

Synonym(s): Rifamide, BAN, INN, USAN. Rifammide. Rifamycin M 14. Rifocin M. NSC 133099

CAS Registry Number: 2750-76-7

Molecular Formula: C₄₃H₅₈N₂O₁₃

Molecular Weight: 810.937

Accurate Mass: 810.393893

Percentage Composition: C 63.69%; H 7.21%; N 3.45%; O 25.65%

Use/Importance: Antibacterial agent

Physical Description: Yellow-orange cryst. (C₆H₆/hexane)

Optical Rotation: [α]_D²⁰ -48.7 (c, 0.4 in MeOH)

Other Data: No def. Mp. Softens at 140°. Melts completely at 170°

Hazard & Toxicity: LD₅₀ (mus, orl) 2450 mg/kg. Exp. reprod. effects

>>Derivative: 8-Deoxy

Synonym(s): 8-Deoxyrifamycin B

CAS Registry Number: 75367-97-4

Molecular Formula: C₃₉H₄₉NO₁₃

Molecular Weight: 739.815

Accurate Mass: 739.320394

Percentage Composition: C 63.32%; H 6.68%; N 1.89%; O 28.11%

Source/Synthesis: From *Nocardia mediterranei*

References: