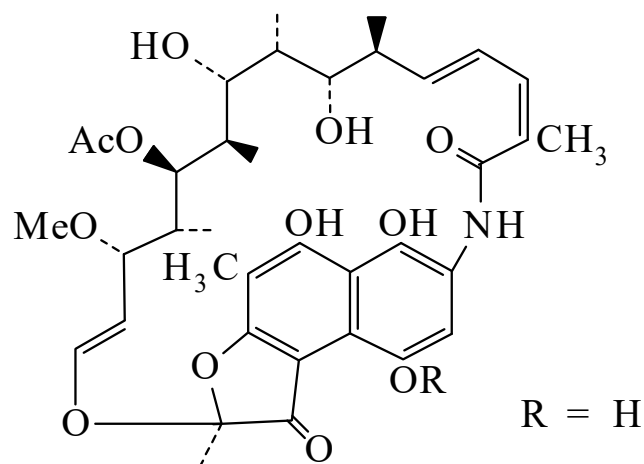




>>Entry Name: Rifamycin SV

Synonym(s): Rifamycin, 9CI, BAN, INN, JAN. Chibromycine. Chibro-Rifamycin. Rifocin. Rifal. Rifosten. Santarycin. NSC 133100



CAS Registry Number: 6998-60-3

Related CAS Registry Numbers(s): 14897-39-3

Molecular Formula: C₃₇H₄₇NO₁₂

Molecular Weight: 697.778

Accurate Mass: 697.309829

Percentage Composition: C 63.69%; H 6.79%; N 2.01%; O 27.51%

Biological Source: Isol. from *Streptomyces mediterranei*, *Nocardia mediterranei* and *Micromonospora* spp.

Use/Importance: Antibacterial agent

Physical Description: Yellow-orange cryst.

Melting Point: Mp 300° (140° dec.)

Optical Rotation: $[\alpha]_D^{20} -4$ (MeOH)

Solubility: BERDY SOL: Sol. MeOH, C₆H₆; poorly sol. H₂O, hexane

Calculated Log P Data: Log P 1.83 (uncertain value) (calc)

UV: [acid] $\lambda_{\max}$ (solvent not reported) (Derep) [base] $\lambda_{\max}$ (solvent not reported) (Derep) [neutral] $\lambda_{\max}$ 223 (ϵ 40800); 314 (ϵ 22400); 445 (ϵ 14200) (pH 7.3 phosphate buffer) (Derep) [base] $\lambda_{\max}$ 223 (E1%/1cm 585); 314 (E1%/1cm 322); 445 (E1%/1cm 204) (pH 7.5 buffer) (Berdy)

Other Data: Readily oxidised by air → Rifamycin S [CJW99-U](#)

Hazard & Toxicity: LD₅₀ (mus, orl) 2120 mg/kg. Exp. reprod. and teratogenic effects ; BERDY HAZD : LD₅₀ (mus, ivn) 550 mg/kg , LD₅₀ (mus, ipr) 625 mg/kg , LD₅₀ (mus, orl) 2120 mg/kg

References:

- Gallo, G.G. *et al.*, *Farmaco, Ed. Prat.*, 1963, **18**, 78, (isol)
Oppolzer, W. *et al.*, *Experientia*, 1964, **20**, 336, (struct)
Brufani, M. *et al.*, *Experientia*, 1964, **20**, 339, (cryst struct)
Seong, B.L. *et al.*, *Chem. Lett.*, 1982, 627, (biosynth)
Gurgo, C. *et al.*, *Handb. Exp. Pharmacol.*, 1982, **61**, 519, (rev)
Arora, S.K. *et al.*, *Mol. Pharmacol.*, 1983, **23**, 133, (cryst struct)
Sensi, P., *Rev. Infect. Dis.*, (Suppl. 3), 1983, **5**, 402, (bibl)
Ghisalba, O. *et al.*, *Drugs Pharm. Sci.*, 1984, **22**, 281, (rev)
Lancini, G., *Biotechnology*, 1986, **4**, 431, (rev)
Martindale, *The Extra Pharmacopoeia*, 30th edn., Pharmaceutical Press, 1993, 200
Bacchi, A. *et al.*, *J. Med. Chem.*, 1998, **41**, 2319-2332, (ir, pmr)
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, RKZ000