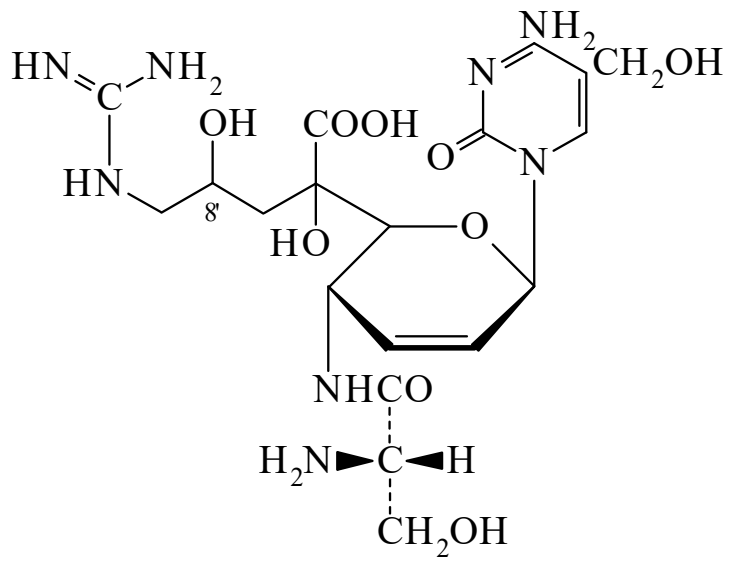
>>**Entry Name: Mildiomycin**
Synonym(s): B 98891. Antibiotic B 98891



CAS Registry Number: 67527-71-3
Related CAS Registry Numbers(s): 78162-87-5 78162-88-6 78162-89-7 78162-90-0 78162-91-1

Molecular Formula: $C_{19}H_{30}N_8O_9$
Molecular Weight: 514.494
Accurate Mass: 514.213577
Percentage Composition: C 44.36%; H 5.88%; N 21.78%; O 27.99%

Biological Source: Isol. from *Streptoverticillium rimofaciens*
Use/Importance: Active against gram-positive and -negative bacteria, yeasts and fungi. Fungicide against powdery mildew
Melting Point: Mp 300 dec.°
Optical Rotation: $[\alpha]_D^{23}$+100 (c, 1 in H_2O)
Solubility: BERDY SOL: Sol. H_2O; fairly sol. Py, DMSO, dioxan, THF; poorly sol. MeOH, hexane
UV: [acid] λ_{max} 266 (ε 8470) (MeOH/HCl) (Derep) [base] λ_{max} (MeOH) (Derep) [neutral] λ_{max} 284 (ε 9380) (MeOH) (Derep) [neutral] λ_{max} 271 (E1%/1cm 157) (pH 7 buffer) (Berdy) [base] λ_{max} 271 (E1%/1cm 154) (NAOH) (Berdy) [acid] λ_{max} 280 (E1%/1cm 247) (HCl) (Berdy) [neutral] λ_{max} 271 (ε 8720) (H_2O) (Berdy)
Hazard & Toxicity: BERDY HAZD : LD_{50} (mus, ivn) 500 - 1500 mg/kg , LD_{50} (mus, orl) 5000 mg/kg

>>**Derivative:** 8'-Deoxy
Synonym(s): Mildiomycin D

CAS Registry Number: 86432-24-8

Molecular Formula: $C_{19}H_{30}N_8O_8$
Molecular Weight: 498.495
Accurate Mass: 498.218662
Percentage Composition: C 45.78%; H 6.07%; N 22.48%; O 25.68%
Biological Source: Isol. from *Streptoverticillium rimofaciens*
Use/Importance: Weakly active against gram-positive and -negative bacteria, phytopathogenic fungi and some yeasts
Physical Description: Powder + $2H_2O$
Melting Point: Mp 210 dec.°
Optical Rotation: $[\alpha]_D^{20}$+119.4 (c, 1 in H_2O)
Solubility: BERDY SOL: Sol. H_2O; poorly sol. MeOH, hexane
UV: [acid] λ_{max} 266 (ε 8470) (MeOH/HCl) (Derep) [base] λ_{max} (MeOH) (Derep) [neutral] λ_{max} 284 (ε 9380) (MeOH) (Derep) [neutral] λ_{max} 271 (ε 9100) (H_2O) (Berdy) [base] λ_{max} 271 (ε 9100) (NAOH) (Berdy) [acid] λ_{max} 280 (ε 13600) (HCl) (Berdy)
Hazard & Toxicity: BERDY HAZD : LD_{50} (mus, ipr) 1000 - 3000 mg/kg

References:

Harada, S. *et al.*, *Tetrahedron*, 1981, **37**, 1317
Tashiro, S. *et al.*, *Agric. Biol. Chem.*, 1984, **48**, 881, *(isol, uv, pmr, cmr, deriv)*
Sawada, H. *et al.*, *J. Ferment. Technol.*, 1984, **62**, 537, *(analogues)*
Feduchi, E. *et al.*, *J. Antibiot.*, 1985, **38**, 415
Sawada, H. *et al.*, *J. Ferment. Technol.*, 1985, **63**, 17; *CA*, **102**, 145879c, *(biosynth)*
Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold*, 1992, MQU000

https://www.baizuoyan.com - CopyRight ©baizuoyan