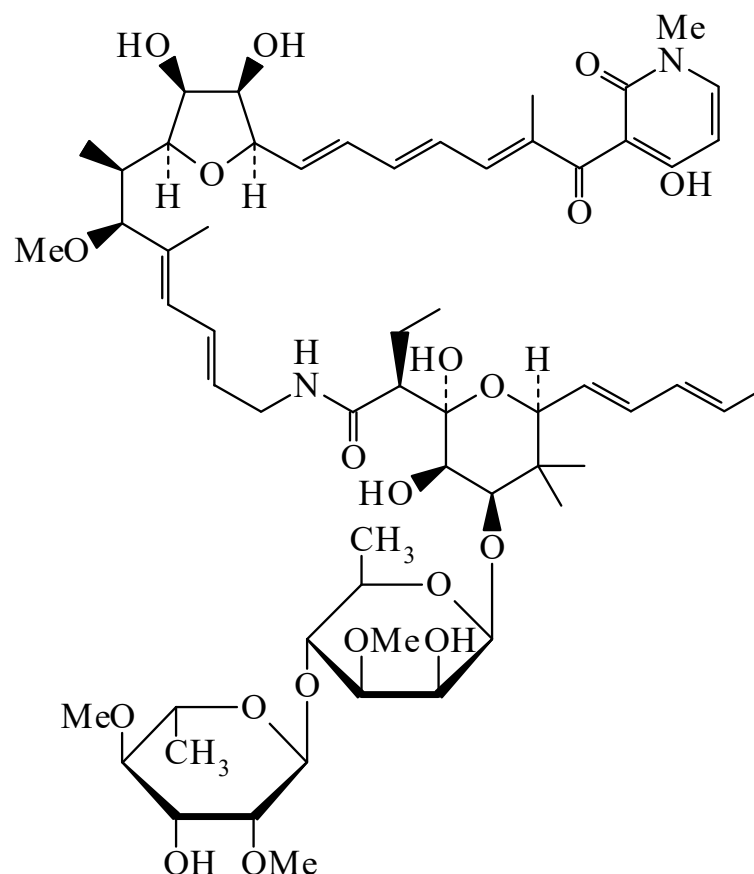




>>Entry Name: Efrotomycin, BAN, INN, USAN

Synonym(s): Efrotomycin A₁. FR 02A. MK 621. Antibiotic FR 02A. Antibiotic MK 621. Producil



CAS Registry Number: 56592-32-6

Type of Compound Code(s): VC0300 XA1360 VE9500 AF9500 XA1150

Molecular Formula: C₅₉H₈₈N₂O₂₀

Molecular Weight: 1145.346

Accurate Mass: 1144.593048

Percentage Composition: C 61.87%; H 7.74%; N 2.45%; O 27.94%

General Statement: Polyene antibiotic

Biological Source: Prod. by *Streptomyces lactamdurans*

Use/Importance: Active against gram-positive and -negative bacteria, P.P.L.O. in chickens and cattle, coccidiosis in mice and chickens

Physical Description: Pale yellow solid

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

Calculated Log P Data: Log P 1.27 (uncertain value) (calc)

UV: [base] λ_{max} 233 (ε 36600); 328 (ε 20600) (as ammonium salt) (Derep) [neutral] λ_{max} 232 (ε 53100); 327 (ε 24700) (pH 7 phosphate buffer) (Derep) [neutral] λ_{max} 219 (E1%/1cm 556); 230 (E1%/1cm 554); 325 (E1%/1cm 317) (MeOH) (Berdy) [neutral] λ_{max} 233 (E1%/1cm 320); 328 (E1%/1cm 180) (H₂O) (Berdy) [neutral] λ_{max} 219 (E1%/1cm 556); 230 (E1%/1cm 554); 232 (E1%/1cm 464); 325 (E1%/1cm 317); 327 (E1%/1cm 216) (pH 7 buffer) (Berdy)

Other Data: Related to Goldinomycin (see Mocimycin [CKJ22-M](#))

Hazard & Toxicity: LD₅₀ (mus, orl) >4000 mg/kg ; BERDY HAZD : LD₅₀ (mus, scu) 2000 - 4000 mg/kg , LD₅₀ (mus, orl) 4000 - 8000 mg/kg

>>Derivative: N-De-Me

Synonym(s): N-Demethylefrotomycin

CAS Registry Number: 124846-41-9

Type of Compound Code(s): VC0300

Molecular Formula: C₅₈H₈₆N₂O₂₀

Molecular Weight: 1131.319

Accurate Mass: 1130.577398

Percentage Composition: C 61.58%; H 7.66%; N 2.48%; O 28.28%

Biological Source: Prod. by *Nocardia* sp. ATCC 53758

Physical Description: Yellow powder

Solubility: BERDY SOL: Sol. MeOH, EtOAc

UV: [neutral] λ_{max} 233 (); 328 () (MeOH) [neutral] λ_{max} 233 (); 328 () (MeOH) (Berdy)

References:

- U.S. Pat.*, 1977, 4 024 251; *CA*, **87**, 37365v, (*isol*)
Frost, B.M. *et al.*, *J. Antibiot.*, 1979, **32**, 626, (*props*)
Dewey, R.S. *et al.*, *J. Antibiot.*, 1985, **38**, 1691, (*struct*)
Dolle, R.E. *et al.*, *J.A.C.S.*, 1985, **107**, 1691; 1695, (*synth*)
U.S. Pat., 1989, 4 847 245; *CA*, **112**, 53744h, (*N-Demethylefrotomycin*)
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