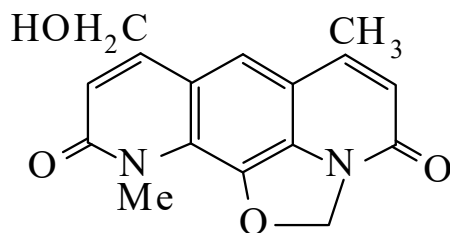




>>Entry Name: Nybomycin

Synonym(s): 8-(Hydroxymethyl)-6,11-dimethyl-2*H*,4*H*-oxazolo[5,4,3-*ij*]pyrido[3,2-*g*]quinoline-4,10(11*H*)-dione, 9Cl, 8Cl



CAS Registry Number: 30408-30-1

Molecular Formula: C₁₆H₁₄N₂O₄

Molecular Weight: 298.298

Accurate Mass: 298.095358

Percentage Composition: C 64.42%; H 4.73%; N 9.39%; O 21.45%

Biological Source: Produced by Streptomyces A. 717 isol. from Missouri soil

Use/Importance: Antibiotic showing antiphage and antibacterial props.

Physical Description: Needles (AcOH)

Melting Point: Mp 325-330°

Boiling Point: Bp₁₅ 250° subl.

Solubility: Sol. conc. acids, insol. org. solvs.; BERDY SOL: Fairly sol. DMF; poorly sol. H₂O, MeOH, hexane

UV: [neutral] λ_{max} 222 (ε 18400); 236 (sh) (ε 15000); 264 (ε 11150); 286 (ε 40500); 296 (sh) (ε 32100); 353 (ε 11900); 367 (ε 12200) (MeOH) (Derep) [neutral] λ_{max} 266 (E1%/1cm 1031); 286 (E1%/1cm 1362); 369 (E1%/1cm 411) (MeOH) (Berdy) [neutral] λ_{max} 222 (); 266 (); 286 (); 369 () (EtOH) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ipr) 650 mg/kg

>>Derivative: Ac

Molecular Formula: C₁₈H₁₆N₂O₅

Molecular Weight: 340.335

Accurate Mass: 340.105923

Percentage Composition: C 63.53%; H 4.74%; N 8.23%; O 23.51%

Physical Description: Cryst. (CHCl₃/EtOH)

Melting Point: Mp 236-237°

>>Derivative: Deoxy

Synonym(s): Deoxynybomycin

CAS Registry Number: 27259-98-9

Molecular Formula: C₁₆H₁₄N₂O₃

Molecular Weight: 282.298

Accurate Mass: 282.100443

Percentage Composition: C 68.08%; H 5.00%; N 9.92%; O 17.00%

Biological Source: From *Streptomyces hyalinium*

Use/Importance: Antibiotic active against gram-positive organisms

Physical Description: Needles

Melting Point: Mp 335 dec.°

Solubility: BERDY SOL: Fairly sol. AcOH; poorly sol. H₂O, MeOH, DMF, DMSO, hexane

UV: [neutral] λ_{max} 220 (ε 27500); 264 (ε 36300); 285 (ε 46800); 294 (sh) (ε 38900); 353 (ε 12000); 369 (ε 12900) (MeOH) (Derep) [neutral] λ_{max} 220 (ε 27550); 264 (ε 36300); 285 (ε 46780); 353 (ε 1200); 368 (ε 1290) (MeOH) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ipr) 650 mg/kg

>>Derivative: 1'-Hydroxy

Synonym(s): Hydroxynybomycin

CAS Registry Number: 63582-81-0

Molecular Formula: C₁₆H₁₄N₂O₅

Molecular Weight: 314.297

Accurate Mass: 314.090273

Percentage Composition: C 61.14%; H 4.49%; N 8.91%; O 25.45%

Biological Source: From *Streptomyces* spp.

Use/Importance: Antibiotic active against gram-positive organisms

Physical Description: Pale-yellow cryst. (DMF)

Melting Point: Mp 360°