



Accurate Mass: 449.28495

Percentage Composition: C 50.76%; H 8.74%; N 15.58%; O 24.91%

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

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

Hazard & Toxicity: LD₅₀ (mus, ivn) 70 mg/kg

>>Derivative: 1-*N*-Et

Synonym(s): 1-*N*-Ethylgentamicin C_{1a}, Antibiotic 89-07

CAS Registry Number: 59711-96-5

Molecular Formula: C₂₁H₄₃N₅O₇

Molecular Weight: 477.6

Accurate Mass: 477.31625

Percentage Composition: C 52.81%; H 9.07%; N 14.66%; O 23.45%

Biological Source: Prod. by *Micromonospora echinospora*

Biological Use/Importance: Active against gram-positive and -negative bacteria

Physical Description: Powder

Solubility: BERDY SOL: Sol. H₂O

UV: [neutral] $\lambda_{\max}$ 200 () (H₂O) [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

>>Derivative: 3"-*N*-De-Me

Synonym(s): 3"-*N*-Demethylgentamicin C_{1a}

CAS Registry Number: 59864-29-8

Molecular Formula: C₁₈H₃₇N₅O₇

Molecular Weight: 435.52

Accurate Mass: 435.2693

Percentage Composition: C 49.64%; H 8.56%; N 16.08%; O 25.72%

Biological Source: Prod. by *Micromonospora sagamiensis*

Biological Use/Importance: Active against gram-positive and -negative bacteria

Physical Description: Powder

Solubility: BERDY SOL: Sol. H₂O

UV: [neutral] $\lambda_{\max}$ 200 () (H₂O) [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

>>Derivative: 4"-Demethyl

Synonym(s): 4"-Demethylgentamicin C_{1a}

CAS Registry Number: 61769-70-8

Molecular Formula: C₁₈H₃₇N₅O₇

Molecular Weight: 435.52

Accurate Mass: 435.2693

Percentage Composition: C 49.64%; H 8.56%; N 16.08%; O 25.72%

Biological Source: From *Micromonospora purpurea-nigrescens*

Use/Importance: Active against gram-positive and -negative bacteria, and mycobacteria

Optical Rotation: [α]_D +144 (H₂O)

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

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

>>Variant: Gentamicin C₂

CAS Registry Number: 25876-11-3

Molecular Formula: C₂₀H₄₁N₅O₇

Molecular Weight: 463.573

Accurate Mass: 463.3006

Percentage Composition: C 51.82%; H 8.91%; N 15.11%; O 24.16%

Melting Point: Mp 107-124°

Optical Rotation: [α]_D²⁵ +160 (H₂O)

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

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

Hazard & Toxicity: LD₅₀ (mus, ivn) 70 mg/kg ; BERDY HAZD : LD₅₀ (mus, ivn) 83 mg/kg