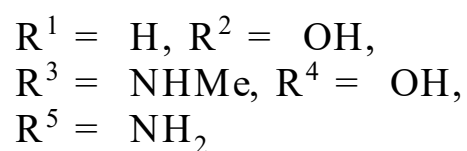
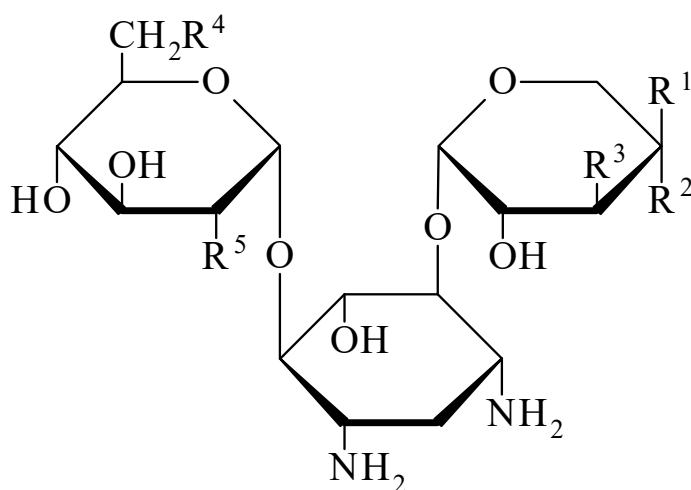




>>Entry Name: Gentamicin A

Synonym(s): Gentiomycin A. KM 444B_{1a}. Antibiotic KM 444B_{1a}



CAS Registry Number: 13291-74-2

Related CAS Registry Numbers(s): 1405-41-0

Molecular Formula: C₁₈H₃₆N₄O₁₀

Molecular Weight: 468.503

Accurate Mass: 468.243146

Percentage Composition: C 46.15%; H 7.74%; N 11.96%; O 34.15%

General Statement: Aminoglycoside antibiotic

Biological Source: Isol. from *Micromonospora* spp.

Use/Importance: Broad spectrum antibiotic

Physical Description: Prismatic needles + 1½ H₂O (MeOH aq.)

Melting Point: Mp 200 dec.° (sinters and loses H₂O at 151-154°)

Optical Rotation: [α]_D²³+136 (c, 1.0 in H₂O)

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

Calculated Log P Data: Log P -6.66 (uncertain value) (calc)

UV: [neutral] λ_{max} (H₂O) (Berdy)

Hazard & Toxicity: LD₅₀ (mus, ipr) 1750 mg/kg ; BERDY HAZD : LD₅₀ (mus, ivn) 331 mg/kg , LD₅₀ (mus, ipr) 1750 mg/kg , LD₅₀ (mus, scu) 3000 mg/kg

>>Derivative: 6'-Me

Synonym(s): 6'-Methylgentamicin A

CAS Registry Number: 66277-09-6

Molecular Formula: C₁₉H₃₈N₄O₁₀

Molecular Weight: 482.53

Accurate Mass: 482.258796

Percentage Composition: C 47.29%; H 7.94%; N 11.61%; O 33.16%

Biological Source: From *Micromonospora purpurea-nigrescens*

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

Optical Rotation: [α]_D +140 (H₂O)

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

UV: [neutral] λ_{max} (H₂O) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ivn) 240 mg/kg

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