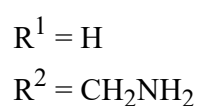
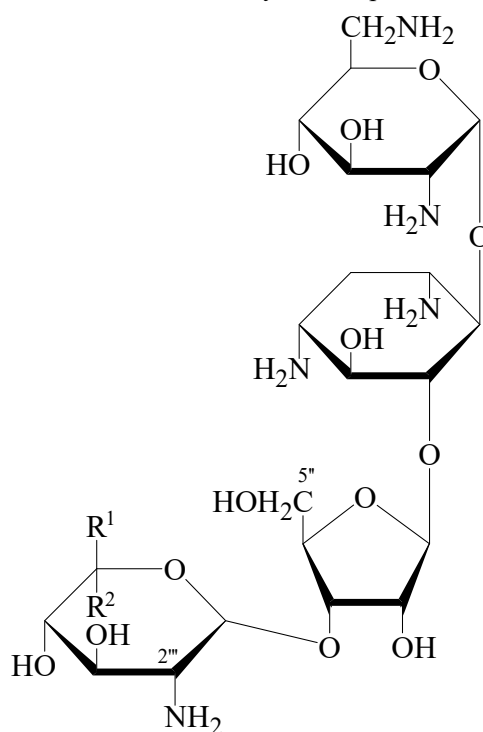




>>Entry Name: Neomycin B

Synonym(s): Framycetin, BAN, INN. Actilin. Soframycin. Antibiotic 10676. Dextromycin. Streptothricin B₂. Dekamycin III. Many other names



CAS Registry Number: 119-04-0

Related CAS Registry Numbers(s): 1405-10-3 1406-04-8

Molecular Formula: C₂₃H₄₆N₆O₁₃

Molecular Weight: 614.649

Accurate Mass: 614.312289

Percentage Composition: C 44.94%; H 7.54%; N 13.67%; O 33.84%

Biological Source: Prod. by *Streptomyces fradiae* and other spp.

Use/Importance: Clinically used broad-spectrum antibiotic

Physical Description: Amorph.

Optical Rotation: $[\alpha]_D^{25} +83$ (c, 1 in 0.2M H₂SO₄)

Calculated Log P Data: Log P -9.03 (uncertain value) (calc)

UV: [neutral] λ_{max} 0 (end) (ϵ) (H₂O) (Derep)

Other Data: Indefinite Mp. Hydrol. → Neomycin A, D-ribose and 2,6-diamino-2,6-dideoxy-L-idose

Hazard & Toxicity: LD₅₀ (mus, scu) 220 mg/kg; LD₅₀ (mus, orl) 1250 mg/kg

>>Derivative: Mixt. with Neomycin A and C

Synonym(s): Neomycin, BAN, INN. Fradiomycin. Many other names

CAS Registry Number: 1404-04-2

Use/Importance: Antibiotic complex

Other Data: Used mainly topically as sulfate and as undecylenate salts

Hazard & Toxicity: Nephrotoxic and ototoxic effects reported when used therapeutically. Other adverse effects. LD₅₀ (mus, scu) 275 mg/kg. LD₅₀ (mus, orl) 2880 mg/kg

>>Derivative: O^{5''}-β-D-Glucopyranoside

Synonym(s): Neomycin B glucoside

CAS Registry Number: 53861-54-4

Molecular Formula: C₂₉H₅₆N₆O₁₈

Molecular Weight: 776.791

Accurate Mass: 776.365114

Percentage Composition: C 44.84%; H 7.27%; N 10.82%; O 37.07%

Biological Source: From *Streptomyces fradiae* in glucose

Optical Rotation: $[\alpha]_D^{25} +35$

Solubility: BERDY SOL: Sol. H₂O