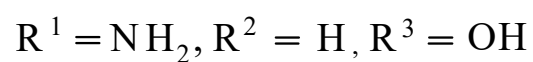
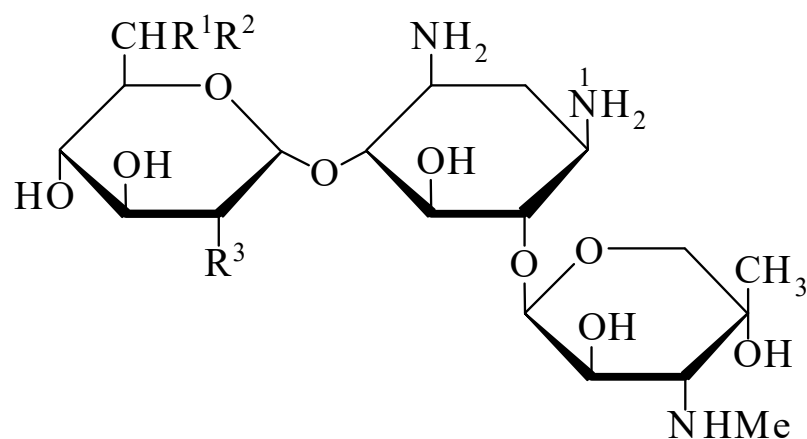




>>Entry Name: Gentamicin B

Synonym(s): Betamicin, INN. Gentiomycin B. Sch 14342. Antibiotic Sch 14342



CAS Registry Number: 36889-15-3

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

Molecular Formula:  $\text{C}_{19}\text{H}_{38}\text{N}_4\text{O}_{10}$

Molecular Weight: 482.53

Accurate Mass: 482.258796

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

General Statement: Aminoglycoside antibiotic

Biological Source: Prod. by *Micromonospora* spp.

Use/Importance: Shows broad-spectrum activity

Optical Rotation:  $[\alpha]_{\text{D}}^{26} +155$  (c, 0.3 in  $\text{H}_2\text{O}$ )

Solubility: BERDY SOL: Sol.  $\text{H}_2\text{O}$ , MeOH, Py, DMF; fairly sol. EtOH; poorly sol. butanol, hexane

Calculated Log P Data: Log P  $-6.12$  (uncertain value) (calc)

UV: [neutral]  $\lambda_{\text{max}}$  ( $\text{H}_2\text{O}$ ) (Berdy)

Hazard & Toxicity:  $\text{LD}_{50}$  (mus, ivn) 228 mg/kg ; BERDY HAZD :  $\text{LD}_{50}$  (mus, ivn) 278 mg/kg ,  $\text{LD}_{50}$  (mus, ipr) 1750 mg/kg

>>Derivative: Sulfate (1:x)

Synonym(s): Betamicin sulfate, USAN

CAS Registry Number: 43169-50-2

>>Derivative: 1-N-[(S)-3-Amino-2-hydroxypropanoyl]

Synonym(s): Isepamicin, BAN, INN, USAN. Sch 21420. Antibiotic Sch 21420. HAPA-B

CAS Registry Number: 58152-03-7

Molecular Formula:  $\text{C}_{22}\text{H}_{43}\text{N}_5\text{O}_{12}$

Molecular Weight: 569.608

Accurate Mass: 569.290825

Percentage Composition: C 46.39%; H 7.61%; N 12.30%; O 33.71%

Source/Synthesis: Semisynthetic

Use/Importance: Shows clinical potential; has increased activity with lower toxicity than Gentamicin B

Physical Description: Powder +  $2\text{H}_2\text{SO}_4$

Development Status: Launched 1988

Optical Rotation:  $[\alpha]_{\text{D}}^{26} +110.9$  (c, 1 in  $\text{H}_2\text{O}$ )

Calculated Log P Data: Log P  $-7$  (uncertain value) (calc)

Hazard & Toxicity:  $\text{LD}_{50}$  (mus, ipr) 5000 mg/kg