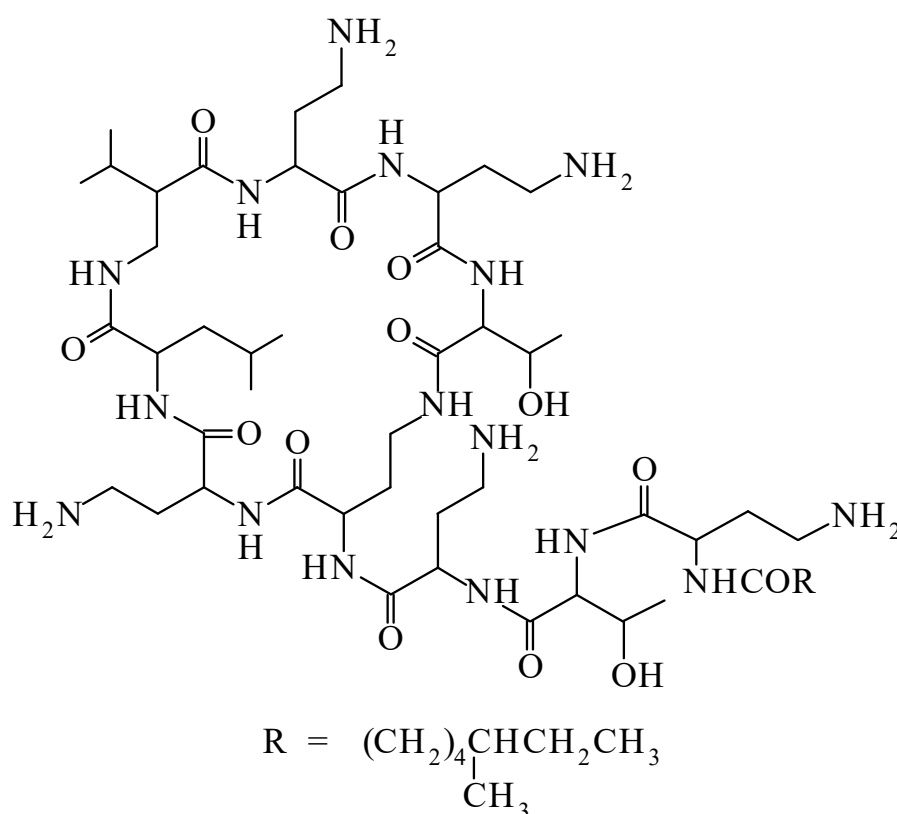




>>Entry Name: Colistin, BAN, INN

Synonym(s): Polymyxin E. Colimycin M. Belcomycin. Colymycin. Torazin



CAS Registry Number: 1066-17-7

Related CAS Registry Numbers(s): 1264-72-8 21362-08-3

General Statement: Lipopeptide antibiotic complex. Struct. of Colistin A shown; B and C have $R = -(\text{CH}_2)_4\text{CH}(\text{CH}_3)_2$ and $-(\text{CH}_2)_6\text{CH}_3$ resp.

Biological Source: Isol. from *Bacillus polymyxa* var. *colistinus*

Biological Use/Importance: Intestinal antibacterial agent

Other Data: Colistins A-C are thought to be artifacts prod. by isolation process. More careful isolation yields Colistins Pro-A, Pro-B, Pro-C which have higher molecular weights and greater activity. Their structures are not fully known. Colistins A_H, A_L, B_H, B_L were sepd. from other Colistins by hplc. They are thought also to be artifacts. Their structs. are unknown but amino acid compositions have been detd.

Hazard & Toxicity: Nephrotoxic and neurotoxic adverse effects reported from the therapeutic use of polymyxins. LD₅₀ (mus, ipr) 236 mg/kg

>>Variant: Colistin A

Synonym(s): Polymyxin E₁, 9Cl. Multimycine

CAS Registry Number: 7722-44-3

Molecular Formula: C₅₃H₁₀₀N₁₆O₁₃

Molecular Weight: 1169.472

Accurate Mass: 1168.765579

Percentage Composition: C 54.43%; H 8.62%; N 19.16%; O 17.79%

Biological Use/Importance: Antibiotic with broad spectrum of activity, used clinically

Physical Description: Amorph. powder

Optical Rotation: $[\alpha]_{\text{Hg}}^{22} -93.3$ (c, 2 in AcOH aq.)

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

UV: [neutral] λ_{max} (H₂O) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ipr) 23 mg/kg

>>Derivative: Pentakis(sodium methanesulfonate)

Synonym(s): Colistimethate sodium, INN, USAN. Colistin sulphomethate sodium, BAN. Colistinat. Colymycin M. Methacolimycin. Sulphomethate. Many other names

CAS Registry Number: 8068-28-8

Biological Use/Importance: Injectable form of Colistin. Intestinal antibacterial agent

Hazard & Toxicity: Nephrotoxic and neurotoxic effects reported when used therapeutically. LD₅₀ (rat, orl) 5450 mg/kg. LD₅₀ (rat, ipr) 86 mg/kg. Exp. reprod. and teratogenic effects

Fluka: 27655

Sigma: C1511