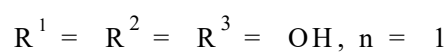
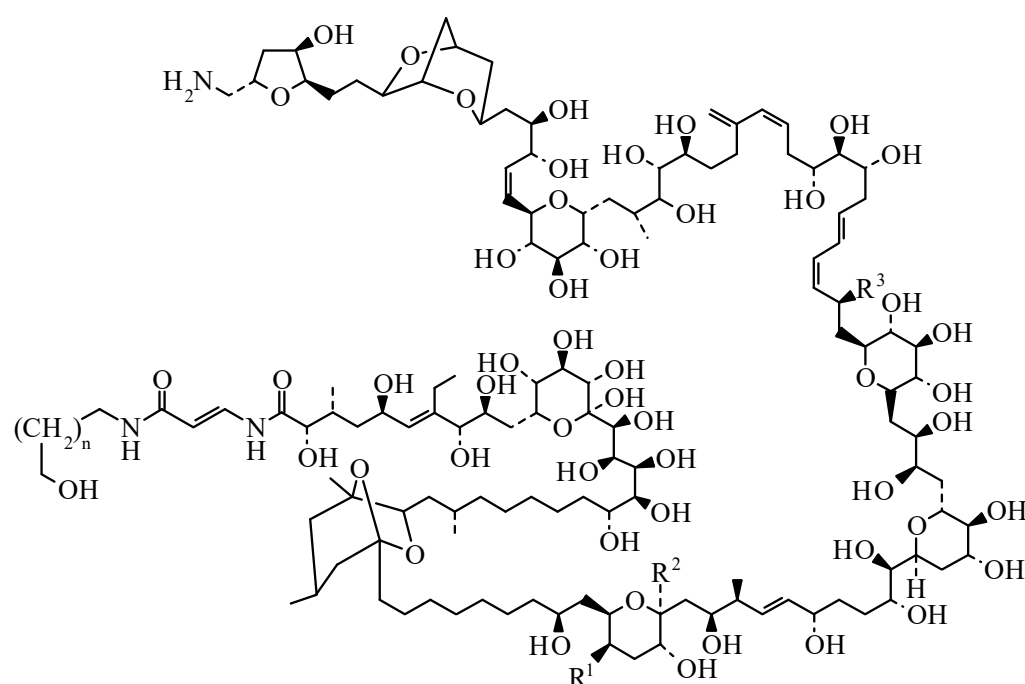




>>Entry Name: Palytoxin



CAS Registry Number: 77734-91-9

Related CAS Registry Numbers(s): 11077-03-5

Molecular Formula: C₁₂₉H₂₂₃N₃O₅₄

Molecular Weight: 2680.168

Accurate Mass: 2678.479607

Neopalytoxin (R¹R² = O, R³ = OH, n = 1) and *Deoxypalytoxin* (R¹ = R² = OH, R³ = H, n = 1)

Biological Source: Prod. by *Palythoa tuberculosa* and *Palythoa toxica*

Use/Importance: Toxin

Solubility: BERDY SOL: Sol. Py, DMSO, H₂O; fairly sol. MeOH, EtOH; poorly sol. CHCl₃, Me₂CO

UV: [neutral] λ_{max} 233 (); 263 (ε 23600) (H₂O) (Berdy)

Other Data: 2 forms of Palytoxin are known, the one shown and an acetal form, C₁₂₉H₂₂₁N₃O₅₃. Struct. shown is for Palytoxin from a Tahitian *P.* sp. Palytoxins from *P. toxica* have slightly differing structs.

Hazard & Toxicity: Highly toxic, LD₅₀ 62.5 ng/kg (crab) ; BERDY HAZD : LD₅₀ (mus, ivn) .45 mg/kg , LD₅₀ (mus, ipr) .05 mg/kg

Sigma: P5183

References:

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Beress, L. *et al.*, *Toxicon*, 1983, **21**, 285, (*isol*)

Uemura, D. *et al.*, *Tetrahedron*, 1985, **41**, 1007, (*isol, struct, rev*)

Armstrong, R.W. *et al.*, *J.A.C.S.*, 1989, **111**, 7525; 7530, (*synth*)

Nicolaou, K.C. *et al.*, *Classics in Total Synthesis, Targets, Strategies, Methods*, VCH, 1996, 711, (*bibl, synth*)

Kan, Y. *et al.*, *Tet. Lett.*, 2001, **42**, 3197-3202, (*pmr, cmr*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, PAF000