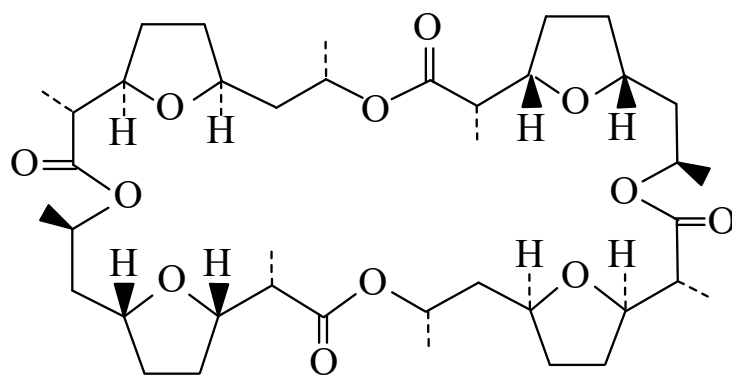




>>Entry Name: Nonactin

Synonym(s): Werramycin. FH 3582A. NSC 52141. AKD 1A. Antibiotic AKD 1A



CAS Registry Number: 6833-84-7

Molecular Formula: $C_{40}H_{64}O_{12}$

Molecular Weight: 736.938

Accurate Mass: 736.43978

Percentage Composition: C 65.19%; H 8.75%; O 26.05%

Biological Source: Isol. from several *Actinomyces* spp.

Use/Importance: Particularly active against gram-positive bacteria

Physical Description: Needles (MeOH)

Melting Point: Mp 149-150°

Optical Rotation: $[\alpha]_D^{20}$ 0 (c, 2.0 in $CHCl_3$)

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

Other Data: Effectively coordinates to a variety of metal cations

Hazard & Toxicity: LD₅₀ (mus, ivn) 246 mg/kg

Fluka: 9877

Sigma: N8135

>>Derivative: KNCS complex

Melting Point: Mp 251-254°

References:

- Dominguez, J. *et al.*, *Helv. Chim. Acta*, 1962, **45**, 129, (*isol*)
Dobler, M. *et al.*, *Helv. Chim. Acta*, 1969, **52**, 2573; 1972, **55**, 1371, (*cryst struct*)
Gerlach, H. *et al.*, *Helv. Chim. Acta*, 1975, **58**, 2036, (*synth, nmr, ms, ir*)
Schmidt, U. *et al.*, *Chem. Ber.*, 1976, **109**, 2628, (*synth, pmr, cmr, ms, ir*)
Anteunis, M.J.O. *et al.*, *Bull. Soc. Chim. Belg.*, 1977, **86**, 445, (*conformn, pmr*)
Ashworth, D.M. *et al.*, *Chem. Comm.*, 1982, 491, (*biosynth, cmr*)
Anon., *Synform*, 1983, 64, (*synth*)
Nawata, Y. *et al.*, *Tetrahedron*, 1983, **39**, 1133, (*conformn, cryst struct*)
Bartlett, P. *et al.*, *J.A.C.S.*, 1984, **106**, 5304, (*synth*)
Bulman Page, P.C. *et al.*, *Chem. Comm.*, 1985, 822, (*synth*)
Batmangherlich, S. *et al.*, *Chem. Comm.*, 1985, 1399, (*synth*)
Clark, C.A. *et al.*, *Chem. Comm.*, 1985, 1568, (*nmr, biosynth*)
Fleming, I. *et al.*, *Chem. Comm.*, 1994, 2285; 2287, (*synth*)
Lee, J.Y. *et al.*, *Tetrahedron*, 1996, **52**, 571, (*synth*)
Fleming, I. *et al.*, *J.C.S. Perkin 1*, 1998, 2733-2747, (*synth*)