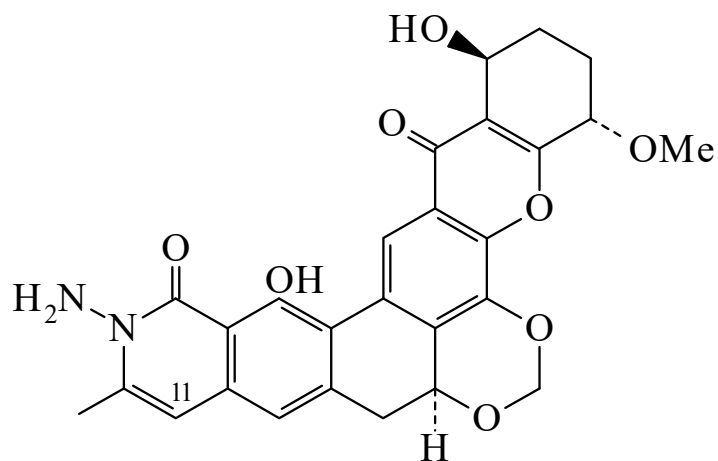




>>Entry Name: Albofungin

Synonym(s): Kanchanomycin. BA 180265A. P 42-1. Antibiotic P 42-1



CAS Registry Number: 37895-35-5

Molecular Formula: C₂₇H₂₄N₂O₉

Molecular Weight: 520.495

Accurate Mass: 520.148183

Percentage Composition: C 62.31%; H 4.65%; N 5.38%; O 27.66%

Biological Source: Metab. of *Actinomyces albus* var. *fungatus* and *Actinomyces tumemacerans*

Use/Importance: Antifungal agent with antineoplastic props.

Physical Description: Yellow cryst. (MeNO₂)

Melting Point: Mp 304-307°

Optical Rotation: $[\alpha]_D^{20}$ -670 (DMF)

Calculated Log P Data: Log P 0.34 (uncertain value) (calc)

UV: [acid] $\lambda_{\max}$ (no shifts reported) (Derep) [base] $\lambda_{\max}$ 250 (ϵ 9000); 320 (ϵ 5000); 388 (ϵ 8000) (MeOH/NaOH) (Derep) [neutral] $\lambda_{\max}$ 230 (ϵ 36400); 253 (ϵ 36500); 300 (ϵ 14600); 364 (sh) (ϵ 22400); 373 (ϵ 23700) (MeOH) (Derep)

Hazard & Toxicity: LD₅₀ (mus, ipr) 2 mg/kg

>>Derivative: Penta-Ac

Melting Point: Mp 230-233°

>>Derivative: 11-Chloro

Synonym(s): Chloroalbofungin. Albofungin B

CAS Registry Number: 37891-66-0

Molecular Formula: C₂₇H₂₃ClN₂O₉

Molecular Weight: 554.939

Accurate Mass: 554.10921

Percentage Composition: C 58.44%; H 4.18%; Cl 6.39%; N 5.05%; O 25.95%

Biological Source: From *Actinomyces albus* var. *fungatus*

Use/Importance: Possesses antifungal and antineoplastic activity

Physical Description: Cryst. (MeNO₂)

Melting Point: Mp 327-330°

Optical Rotation: $[\alpha]_D^{20}$ -560 (DMF)

Solubility: BERDY SOL: Sol. Me₂CO, DMF, DMSO, Py, CHCl₃, dioxan, AcOH; fairly sol. MeOH, EtOH, CHCl₃, C₆H₆, butanol; poorly sol. H₂O, Et₂O, hexane

Calculated Log P Data: Log P 1.27 (uncertain value) (calc)

UV: [neutral] $\lambda_{\max}$ 230 (E1%/1cm 530); 257 (E1%/1cm 540); 311 (E1%/1cm 330); 365 (E1%/1cm 320) (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 233 (ϵ 26300); 254 (ϵ 31600); 305 (ϵ 12300); 384 (ϵ 20900) (EtOH) (Berdy)

References:

Gurevich, A.I. *et al.*, *Tet. Lett.*, 1972, 1751; 1974, 2801, (*uv, ir, pmr, stereochem*)

Fukushima, K. *et al.*, *J. Antibiot.*, 1973, **26**, 65

Onoprienko, V.V. *et al.*, *Bioorg. Khim.*, 1978, **4**, 1418, (*struct*)

Cooper, R. *et al.*, *J. Antibiot.*, 1992, **45**, 444, (*pmr, cmr, cd*)