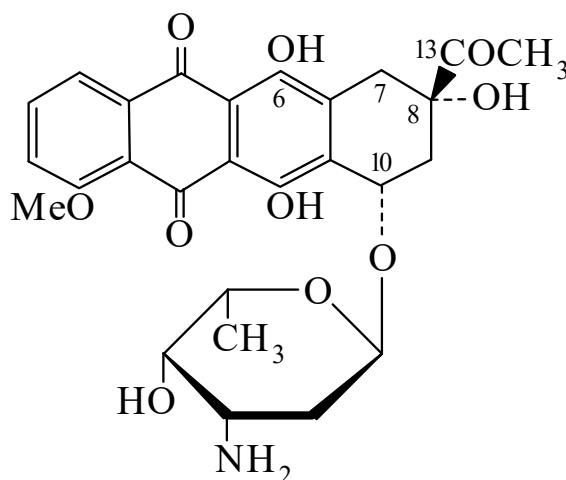




>>Entry Name: Daunomycin, 8Cl

Synonym(s): 8-Acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-*xyo*-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-5,12-naphthacenedione, 9Cl.

Daunorubicin, BAN, INN. Leukaemomycin C. Rubidomycin. Rubomycin C. NSC 83142. Antibiotic Da2B. Da2B



CAS Registry Number: 20830-81-3

Molecular Formula: C₂₇H₂₉NO₁₀

Molecular Weight: 527.527

Accurate Mass: 527.179149

Percentage Composition: C 61.47%; H 5.54%; N 2.66%; O 30.33%

General Statement: Anthracycline antibiotic

Biological Source: Isol. from *Streptomyces peucetius* and *Actinomadura roseola*

Biological Use/Importance: Antineoplastic agent used particularly in the treatment of leukaemia, shows anti-HIV activity. Antifungal agent

Physical Description: Red needles

Melting Point: Mp 190 dec.°

Calculated Log P Data: Log P -0.93 (uncertain value) (calc)

UV: [acid] $\lambda_{\max}$ 234 (ϵ 40700); 252 (ϵ 27700); 290 (ϵ 9400); 480 (ϵ 13300); 500 (ϵ 13300); 530 (ϵ 7200) (pH 4 MeOH) (Derep) [base] $\lambda_{\max}$ 237 (ϵ 26700); 250 (ϵ 32000); 287 (ϵ 6000); 362 (ϵ 4850); 560 (ϵ 13900); 597 (ϵ 12900) (MeOH/NaOH) (Derep) [neutral] $\lambda_{\max}$ 234 (ϵ 40700); 252 (ϵ 27700); 290 (ϵ 9400); 480 (ϵ 13300); 500 (ϵ 13300); 530 (ϵ 7200) (pH 4 MeOH) (Derep)

Other Data: Various numbering systems in general use

Hazard & Toxicity: Possible human carcinogen. LD₅₀ (mus, orl) 205 mg/kg. LD₅₀ (rat, orl) 336 mg/kg. Exp. carcinogen. Exp. reprod. and teratogenic effects

>>Derivative: Hydrochloride

Synonym(s): Daunorubicin hydrochloride, JAN, USAN. Cerubidin. Daunoblastin. Ondena. NSC 82151. RP 13057

CAS Registry Number: 23541-50-6

Physical Description: Thin red needles

Melting Point: Mp 188-190°

Optical Rotation: $[\alpha]_D^{20}$ +248 (c, 0.05 in MeOH)

Solubility: Sol. H₂O

Hazard & Toxicity: Haemopoietic, cardiotoxic and other adverse effects reported when used therapeutically. LD₅₀ (rat, orl) 290 mg/kg

Fluka: 30450

Sigma: D4885

>>Derivative: 13-(2-Benzoylhydrazone)

Synonym(s): Zorubicin, INN. Rubidazone

CAS Registry Number: 54083-22-6

Molecular Formula: C₃₄H₃₅N₃O₁₀

Molecular Weight: 645.665

Accurate Mass: 645.232247

Percentage Composition: C 63.25%; H 5.46%; N 6.51%; O 24.78%

Biological Use/Importance: Antineoplastic, antileukaemic agent