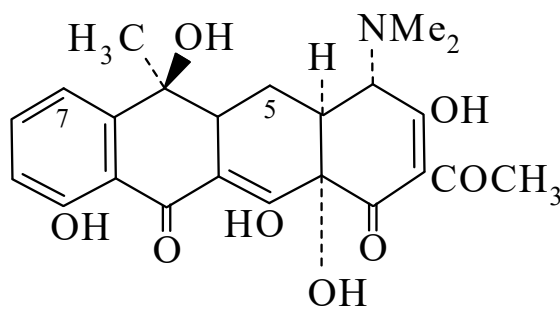




>>Entry Name: 2-Acetyl-2-decarboxamidotetracycline

Synonym(s): 2-Acetyl-4-(dimethylamino)-4a,5a,6,12a-tetrahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11(4H,5H)-naphthacenedione, 9Cl



CAS Registry Number: 6542-44-5

Molecular Formula: C₂₃H₂₅NO₈

Molecular Weight: 443.452

Accurate Mass: 443.158019

Percentage Composition: C 62.30%; H 5.68%; N 3.16%; O 28.86%

General Statement: Tetracycline antibiotic

Biological Source: Metab. of *Streptomyces psammoticus*

Use/Importance: Shows antibiotic props.

Physical Description: Yellow cryst. (hydrate)

Melting Point: Mp 178-185 dec.°

Optical Rotation: [α]_D -125 (c, 1 in 0.5N HCl/MeOH)

UV: [acid] λ_{max} 220 (); 276 (E1%/1cm 312); 359 (E1%/1cm 300) (MeOH-HCl) (Berdy) [base] λ_{max} 270 (E1%/1cm 386); 382 (E1%/1cm 367) (MeOH-NAOH) (Berdy)

>>Derivative: 5-Hydroxy

Synonym(s): 2-Acetyl-2-decarboxamidooxytetracycline. 2-Acetyl-4-(dimethylamino)-4a,5a,6,12a-tetrahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11(4H,5H)-naphthacenedione, 9Cl. Terramycin X

CAS Registry Number: 6986-98-7

Molecular Formula: C₂₃H₂₅NO₉

Molecular Weight: 459.452

Accurate Mass: 459.152934

Percentage Composition: C 60.13%; H 5.48%; N 3.05%; O 31.34%

General Statement: Tetracycline antibiotic

Biological Source: Prod. by *Streptomyces rimosus*

Use/Importance: Shows broad-spectrum activity

Solubility: BERDY SOL: Sol. acids, bases, MeOH; poorly sol. H₂O

UV: [acid] λ_{max} 277 (ε 15000); 357 (ε 13870) (MeOH-HCl) (Berdy) [acid] λ_{max} 275 (E1%/1cm 360); 350 (E1%/1cm 250) (HCl) (Berdy) [base] λ_{max} 237 (ε 10330); 269 (ε 18300); 376 (ε 15600) (MeOH-NAOH) (Berdy)

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ivn) 500 mg/kg

>>Derivative: 5-Hydroxy, hydrochloride

Physical Description: Yellow cryst. (EtOAc/2-propanol)

Melting Point: Mp 202-203°

Optical Rotation: [α]_D²⁵ -46.6 (c, 0.9 in 0.1M HCl)

>>Derivative: 7-Chloro

Synonym(s): 2-Acetyl-2-decarboxamido-7-chlorotetracycline

Molecular Formula: C₂₃H₂₄ClNO₈

Molecular Weight: 477.897

Accurate Mass: 477.119046

Percentage Composition: C 57.81%; H 5.06%; Cl 7.42%; N 2.93%; O 26.78%

General Statement: Tetracycline antibiotic

Biological Source: Isol. from *Streptomyces aureofaciens*

UV: [acid] λ_{max} 232 (ε 28740); 279 (ε 15890); 373 (ε 14190) (MeOH-HCl) (Berdy) [base] λ_{max} 237 (ε 22500); 278 (ε 19660); 387 (ε 16630) (MeOH-NAOH) (Berdy)

>>Derivative: 7-Chloro, sulfosalicylate

Physical Description: Golden needles + 1MeOH

Melting Point: Mp 200° (dec.)

References: