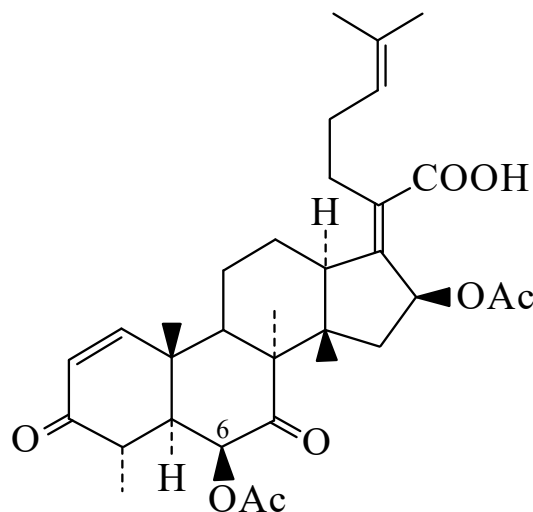




>>Entry Name: Helvolic acid

Synonym(s): 6 β ,16 β -Diacetoxy-3,7-dioxofusida-1,17(20)Z,24-trien-21-oic acid. Fumigacin



CAS Registry Number: 29400-42-8

Molecular Formula: C₃₃H₄₄O₈

Molecular Weight: 568.706

Accurate Mass: 568.30362

Percentage Composition: C 69.70%; H 7.80%; O 22.51%

Biological Source: Produced by *Aspergillus fumigatus* mut. *helvola*

Use/Importance: Shows antibiotic activity against a wide range of organisms, incl. *Staphylococcus*, *Streptococcus*, *Micrococcus*, *Clostridium*, *Pseudomonas*, *Myobacterium*, *Shigella*, *Salmonella* and *Corynebacterium*

Physical Description: Needles (MeOH)

Melting Point: Mp 215°

Optical Rotation: $[\alpha]_D^{25}$ -121 (c, 1 in CHCl₃)

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

UV: [neutral] $\lambda_{\max}$ 230 (ϵ 15500) (MeOH) (Derep) [neutral] $\lambda_{\max}$ 218 (ϵ 14750); 232 (ϵ 17300) (MeOH) (Berdy) [neutral] $\lambda_{\max}$ 231 (ϵ 17378); 322 () (EtOH) (Berdy) [neutral] $\lambda_{\max}$ 205 (); 230 () (MeOH) (Berdy)

Hazard & Toxicity: LD₅₀ (mus, ipr) 400 mg/kg ; BERDY HAZD : LD₅₀ (mus, ipr) 400 mg/kg , LD₅₀ (mus, orl) 1000 mg/kg

Sigma: H3267

>>Derivative: Me ester

Physical Description: Cryst. (MeOH)

Melting Point: Mp 262°

Optical Rotation: $[\alpha]_D^{23}$ -140 (CHCl₃)

>>Derivative: Semicarbazone

Melting Point: Mp 240-250 dec.°

>>Derivative: Dioxime

Physical Description: Needles

Melting Point: Mp 189°

>>Derivative: O⁶-De-Ac

Synonym(s): Helvolinic acid

CAS Registry Number: 10072-61-4

Molecular Formula: C₃₁H₄₂O₇

Molecular Weight: 526.669

Accurate Mass: 526.293055

Percentage Composition: C 70.70%; H 8.04%; O 21.26%

Biological Source: Isol. from *Cephalosporium caerulens*, also obt. by mild hydrol. of Helvolic acid

Physical Description: Needles

Melting Point: Mp 202.5-203°

Optical Rotation: $[\alpha]_D^{24}$ -88.9 (c, 1 in CHCl₃)

Solubility: BERDY SOL: Sol. Me₂CO, EtOAc, bases, CHCl₃; fairly sol. MeOH; poorly sol. hexane

UV: [neutral] $\lambda_{\max}$ 232 () (EtOH) (Berdy)