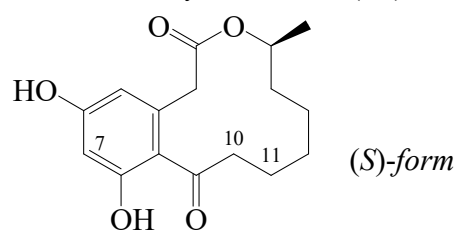




>>Entry Name: Curvularin

Synonym(s): 4,5,6,7,8,9-Hexahydro-11,13-dihydroxy-4-methyl-2*H*-3-benzoxacyclodecin-2,10(1*H*)-dione, 9Cl



Related CAS Registry Numbers(s): 100905-86-0

Molecular Formula: C₁₆H₂₀O₅

Molecular Weight: 292.331

Accurate Mass: 292.131075

Percentage Composition: C 65.74%; H 6.90%; O 27.37%

General Statement: Macrolide antibiotic. Numbering systems vary

UV: [neutral] λ_{max} 224 (ε 11200); 232 (sh) (ε 10000); 272 (ε 6460); 300 (ε 3980) (EtOH) (Derep)

>>Variant: (S)-form

CAS Registry Number: 10140-70-2

Molecular Formula: C₁₆H₂₀O₅

Molecular Weight: 292.331

Accurate Mass: 292.131075

Percentage Composition: C 65.74%; H 6.90%; O 27.37%

Biological Source: Isol. from *Curvularia* spp., *Penicillium gilmanii*, *Penicillium citreo-viride*, *Alternaria cinerariae* and *Alternaria macrospora*

Biological Use/Importance: Cell division inhibitor affecting spindle formation. Phytotoxin

Physical Description: Cryst. (MeOH/C₆H₆)

Melting Point: Mp 206°

Optical Rotation: [α]_D¹⁸ -36.3

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

UV: [neutral] λ_{max} 223 (ε 11200); 270 (ε 6000); 305 (ε 5100) (MeOH) (Berdy) [neutral] λ_{max} 223 (ε 11300); 272 (ε 6350); 304 (ε 5100) (EtOH) (Berdy)

>>Derivative: Dibenzoyl

Molecular Formula: C₃₀H₂₈O₇

Molecular Weight: 500.547

Accurate Mass: 500.183505

Percentage Composition: C 71.99%; H 5.64%; O 22.37%

Physical Description: Cryst. (C₆H₆/petrol)

Melting Point: Mp 133-134°

Optical Rotation: [α]_D¹⁸ -10.8 (c, 1.9 in CHCl₃)

>>Derivative: Di-Me ether

Molecular Formula: C₁₈H₂₄O₅

Molecular Weight: 320.385

Accurate Mass: 320.162375

Percentage Composition: C 67.48%; H 7.55%; O 24.97%

Physical Description: Cryst. (MeOH aq.)

Melting Point: Mp 72°. Mp 105-108°

Optical Rotation: [α]_D¹⁸ -2.9 (c, 2.7 in CHCl₃)

>>Derivative: 10,11-Didehydro(*E*-)

Synonym(s): *trans*-Dehydrocurvularin

CAS Registry Number: 21178-57-4

Molecular Formula: C₁₆H₁₈O₅

Molecular Weight: 290.315

Accurate Mass: 290.115425

Percentage Composition: C 66.20%; H 6.25%; O 27.56%

Biological Source: From *Curvularia* spp., *Alternaria cinerariae*, *Alternaria macrospora* and *Penicillium citreo-viride*

Biological Use/Importance: Cell division inhibitor affecting spindle formation. Phytotoxin

Melting Point: Mp 224°

Optical Rotation: [α]_D²² -79.8 (c, 3.0 in EtOH)

UV: [neutral] λ_{max} 228 (ε 14500); 300 (ε 6310); 330 (sh) (ε 5500) (EtOH) (Derep) [neutral] λ_{max} 226 (ε 12000); 301 (ε 5300); 332 (ε 4700) (MeOH) (Berdy) [neutral] λ