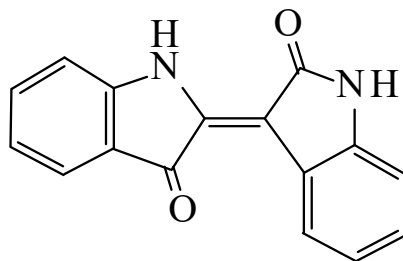




>>Entry Name: Indirubin

Synonym(s): 3-(1,3-Dihydro-3-oxo-2*H*-indol-2-ylidene)-1,3-dihydro-2*H*-indol-2-one, 9Cl. $\Delta^{2,3'}$ -Biindoline-2',3-dione. Couroupitine B. Indigo red. C.I. 75790



CAS Registry Number: 479-41-4

Molecular Formula: C₁₆H₁₀N₂O₂

Molecular Weight: 262.267

Accurate Mass: 262.074228

Percentage Composition: C 73.27%; H 3.84%; N 10.68%; O 12.20%

Biological Source: Alkaloid from *Indigofera* spp. as minor constit. of indigo and *Couroupita guianensis* (Leguminosae, Lecythidaceae). Isol. from the fungal pigment of a *Schizophyllum commune* mutant

Biological Use/Importance: Inhibitor of Lewis lung carcinoma and Walker 256 carcinosarcoma in mice

Physical Description: Red cryst.

Solubility: BERDY SOL: Sol. EtOH, AcOH; poorly sol. H₂O, hexane

UV: [neutral] $\lambda_{\max}$ 522 (); 561 () (xylene) [neutral] $\lambda_{\max}$ 207 (); 239 (); 290 (); 360 (); 540 () (MeOH) (Berdy)

Other Data: Mp >400°. Sublimes

>>Derivative: 1,1'-Di-Ac

Molecular Formula: C₂₀H₁₄N₂O₄

Molecular Weight: 346.342

Accurate Mass: 346.095358

Percentage Composition: C 69.36%; H 4.07%; N 8.09%; O 18.48%

Melting Point: Mp 192-193°

>>Derivative: Oxime

Molecular Formula: C₁₆H₁₁N₃O₂

Molecular Weight: 277.282

Accurate Mass: 277.085127

Percentage Composition: C 69.31%; H 4.00%; N 15.15%; O 11.54%

Melting Point: Mp 246°

References:

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Epstein, E. *et al.*, *CA*, 1966, **66**, 102443, (*isol*)
Plieninger, D.W. *et al.*, *Chem. Ber.*, 1966, **99**, 3063
Sen, A.K. *et al.*, *Tet. Lett.*, 1974, 609, (*isol*)
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Maugard, T. *et al.*, *Phytochemistry*, 2001, **58**, 897-904, (*isol, uv*)