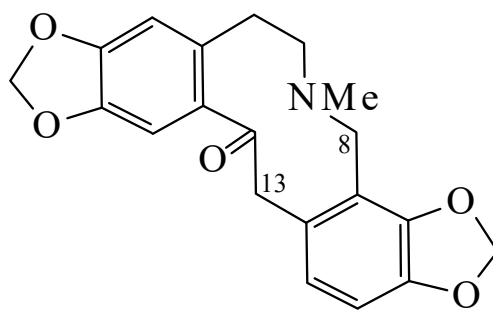




>>Entry Name: Protopine

Synonym(s): 4,6,7,14-Tetrahydro-5-methylbis[1,3]benzodioxolo[4,5-*c*:5',6'-*g*]azecin-13(5*H*)-one, 9Cl. Fumarine. Corydalis C. Corydinine. Biflorine. Macleyine



CAS Registry Number: 130-86-9

Molecular Formula: C₂₀H₁₉NO₅

Molecular Weight: 353.374

Accurate Mass: 353.126324

Percentage Composition: C 67.98%; H 5.42%; N 3.96%; O 22.64%

Biological Source: Alkaloid from a wide variety of genera in the Papaveraceae (*Argemone*, *Bocconia*, *Chelidonium*, *Eschscholtzia*, *Glaucium*, *Hunnemannia*, *Hylomecon*, *Macleaya*, *Meconella*, *Meconopsis*, *Papaver*, *Roemeria*, *Romneya*, *Sanguinaria*, *Stylomecon*), Fumariaceae (*Corydalis*, *Dactylicapnos*, *Dicentra*, *Fumaria*), Berberidaceae (*Berberis*) and Sapindaceae (*Pteridophyllum*)

Use/Importance: Shows weak spasmolytic, smooth muscle stimulant and weak antineoplastic activity. Exp. coronary vessel dilator. Shows bactericidal activity. Sedative. Antihypertensive agent

Physical Description: Cryst. (CHCl₃/EtOH)

Melting Point: Mp 207°

pKa Value: pK_a 5.99

Calculated Log P Data: Log P 2.63 (uncertain value) (calc)

UV: [neutral] λ_{max} 288 (ε 4000) (MeOH) (Berdy) [neutral] λ_{max} 293 (ε 8500) (EtOH) (Berdy) [acid] λ_{max} 240 (); 290 () (MeOH-HCl) (Berdy)

Hazard & Toxicity: LD₅₀ (gpg, orl) 237 mg/kg

Sigma: P9428

>>Derivative: Perchlorate

Melting Point: Mp 321-322°

>>Derivative: Methiodide

Melting Point: Mp 217°

>>Derivative: *N*-Oxide

Synonym(s): Protopine *N*-oxide

CAS Registry Number: 87264-51-5

Molecular Formula: C₂₀H₁₉NO₆

Molecular Weight: 369.373

Accurate Mass: 369.121239

Percentage Composition: C 65.03%; H 5.18%; N 3.79%; O 25.99%

Biological Source: Minor alkaloid from *Bocconia cordata* (Papaveraceae)

Physical Description: Cryst. + 1H₂O (MeOH/Me₂CO)

Melting Point: Mp 145-146 dec.°

>>Derivative: 14-Alcohol

Synonym(s): Dihydroprotopine

Molecular Formula: C₂₀H₂₁NO₅

Molecular Weight: 355.39

Accurate Mass: 355.141974

Percentage Composition: C 67.59%; H 5.96%; N 3.94%; O 22.51%

Biological Source: Alkaloid from *Papaver somniferum* (Papaveraceae)