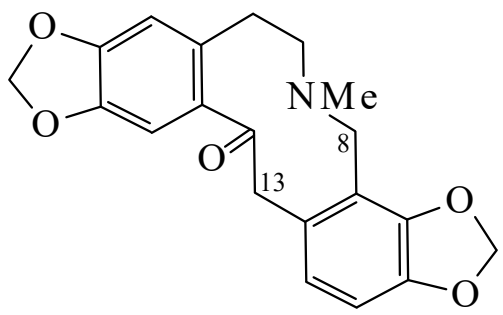
>>**Entry Name: Protopine**
Synonym(s): 4,6,7,14-Tetrahydro-5-methylbis[1,3]benzodioxolo[4,5-*c*:5',6'-*g*]azecin-13(5*H*)-one, 9Cl. Fumarine. Corydalis C. Corydinine. Biflorine. Macleyine



CAS Registry Number: 130-86-9

Molecular Formula: $C_{20}H_{19}NO_5$
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. ($CHCl_3$/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: LD_{50} (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: $C_{20}H_{19}NO_6$
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. + $1H_2O$ (MeOH/Me_2CO)
Melting Point: Mp 145-146 dec.°

>>**Derivative:** 14-Alcohol
Synonym(s): Dihydroprotopine

Molecular Formula: $C_{20}H_{21}NO_5$
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)