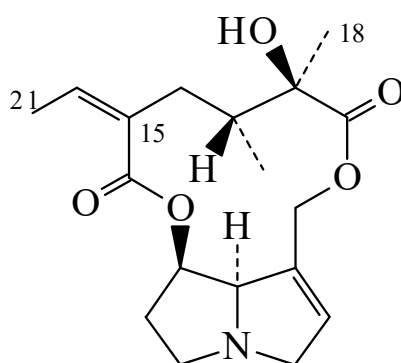




>>Entry Name: Senecionine

Synonym(s): 12-Hydroxysenecionan-11,16-dione, 9Cl. Aureine‡



Absolute
configuration

CAS Registry Number: 130-01-8

Molecular Formula: C₁₈H₂₅NO₅

Molecular Weight: 335.399

Accurate Mass: 335.173274

Percentage Composition: C 64.46%; H 7.51%; N 4.18%; O 23.85%

E

Biological Source: Alkaloid from many *Senecio* spp., also *Brachyglottis repanda*, *Emilia sonchifolia*, *Erechtites hieracifolia*, *Petasites hybridus* and other Compositae. Large amts. obtainable from *Senecio triangularis*; also obt. from *Castilleja rhexifolia* (Scrophulariaceae)

Use/Importance: Shows antineoplastic activity vs. Walker 256 carcinosarcoma

Melting Point: Mp 232-233°

Optical Rotation: [α]_D -56 (CHCl₃)

Calculated Log P Data: Log P -0.04 (uncertain value) (calc)

Other Data: Hieracifoline and Pterophine were mixts. of Senecionine and Seneciphylline [CHG27-H](#)

Hazard & Toxicity: LD₅₀ (rat, ivn) 41 mg/kg. Exp. reprod. and teratogenic effects. Hepatotoxic, also causes lung lesions ; BERDY HAZD : LD₅₀ (mus, ivn) 64 mg/kg

>>Derivative: N-Oxide

Synonym(s): Senecionine N-oxide

CAS Registry Number: 13268-67-2

Molecular Formula: C₁₈H₂₅NO₆

Molecular Weight: 351.399

Accurate Mass: 351.168189

Percentage Composition: C 61.53%; H 7.17%; N 3.99%; O 27.32%

Use/Importance: Antineoplastic agent

Physical Description: Hygroscopic solid

Melting Point: Mp 140-141 dec.° (synthetic)

Calculated Log P Data: Log P -2.01 (uncertain value) (calc)

Hazard & Toxicity: LD₅₀ (mus, ipr) 75 mg/kg

>>Derivative: 15E-Isomer

Synonym(s): Integerrimine. Squalidine. Alkaloid SD

CAS Registry Number: 480-79-5

Molecular Formula: C₁₈H₂₅NO₅

Molecular Weight: 335.399

Accurate Mass: 335.173274

Percentage Composition: C 64.46%; H 7.51%; N 4.18%; O 23.85%

Biological Source: Alkaloid from *Senecio* spp., *Crotalaria incana* and other *Crotalaria* spp., *Cacalia hastata* and others (Leguminosae, Compositae)

Melting Point: Mp 172°

Optical Rotation: [α]_D -29 (-18.3) (CHCl₃). [α]_D +4 (MeOH)

UV: [neutral] $\lambda_{\max}$ 210 (ϵ 10620) (MeOH) (Berdy)