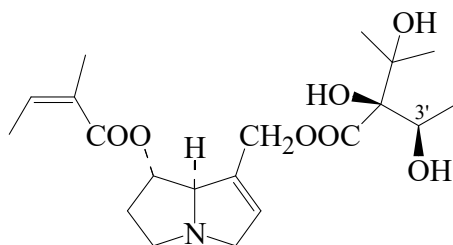




>>Entry Name: Heliosupine

Synonym(s): Cynoglossophine. Asperumine



CAS Registry Number: 32728-78-2

Extra CAS Registry Numbers(s): 32779-96-7

Molecular Formula: C₂₀H₃₁NO₇

Molecular Weight: 397.467

Accurate Mass: 397.210054

Percentage Composition: C 60.44%; H 7.86%; N 3.52%; O 28.18%

Biological Source: Alkaloid from *Heliotropium supinum*, *Senecio asperum* and *Cynoglossum* spp. (Boraginaceae)

Biological Use/Importance: Shows antitumour activity

Melting Point: Mp 148-149°

Optical Rotation: [α]_D -4.3 (c, 5.1 in EtOH)

Solubility: BERDY SOL: Sol. MeOH, EtOH, CHCl₃; poorly sol. H₂O

>>Derivative: Picrate

Physical Description: Cryst. + H₂O

Melting Point: Mp 102-106° (97-100°)

Other Data: Dehydrates to a gum on drying *in vacuo*

>>Derivative: N-Oxide

Synonym(s): Heliosupine N-oxide

CAS Registry Number: 31701-88-9

Molecular Formula: C₂₀H₃₁NO₈

Molecular Weight: 413.467

Accurate Mass: 413.204969

Percentage Composition: C 58.10%; H 7.56%; N 3.39%; O 30.96%

Biological Source: Alkaloid from *Cynoglossum pictum* and *Paracynoglossum imeretinum*

Melting Point: Mp 165 dec.°

>>Derivative: 3'-Ac

Synonym(s): Acetylheliosupine

CAS Registry Number: 31514-30-4

Molecular Formula: C₂₂H₃₃NO₈

Molecular Weight: 439.505

Accurate Mass: 439.220619

Percentage Composition: C 60.12%; H 7.57%; N 3.19%; O 29.12%

Biological Source: Minor alkaloid from *Cynoglossum officinale* and from *Myosotis sylvatica* (Boraginaceae)

Optical Rotation: [α]_D²⁴ -1.8 (c, 0.567 in EtOH)

Other Data: Acetylated at the secondary OH group. Originally considered to be the 2'-Ac deriv.

>>Derivative: 3'-Ac, N-oxide

Synonym(s): 3'-Acetylheliosupine N-oxide

CAS Registry Number: 147802-43-5

Molecular Formula: C₂₂H₃₃NO₉

Molecular Weight: 455.504

Accurate Mass: 455.215534

Percentage Composition: C 58.01%; H 7.30%; N 3.07%; O 31.61%

Biological Source: Alkaloid from aerial parts of *Heliotropium hirsutissimum* (Boraginaceae)

Physical Description: Oil

Optical Rotation: [α]_D²⁰ +14.9 (c, 0.35 in CHCl₃)