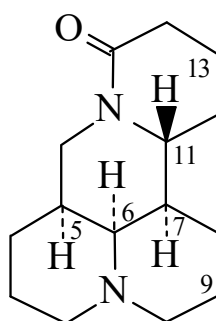




>>Entry Name: Matrine

Synonym(s): Matridin-15-one, 9Cl. Lupanidine



Absolute
conf guration

Molecular Formula: C₁₅H₂₄N₂O

Molecular Weight: 248.367

Accurate Mass: 248.188863

Percentage Composition: C 72.54%; H 9.74%; N 11.28%; O 6.44%

Use/Importance: Has antiulcer, antineoplastic and antibacterial props.

Solubility: BERDY SOL: Sol. H₂O, C₆H₆, Et₂O, CHCl₃; fairly sol. hexane

Calculated Log P Data: Log P 0.58 (uncertain value) (calc)

Other Data: The Matrine skeleton contains four chiral centres leading to a total of 8 possible diastereoisomers. Of these, 6 are currently known (4 or 5 of which are natural alkaloids). However, *cis*-Matrine, having a *cis*-CD ring junction (diastereoisomeric at *N*) has recently been prepd. so that up to 32 diastereoisomers may be possible

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ivn) 150 mg/kg

>>Variant: (+)-form

CAS Registry Number: 519-02-8

Molecular Formula: C₁₅H₂₄N₂O

Molecular Weight: 248.367

Accurate Mass: 248.188863

Percentage Composition: C 72.54%; H 9.74%; N 11.28%; O 6.44%

Biological Source: Alkaloid from *Sophora alopecuroides*, *Sophora flavescens*, *Sophora microphylla*, *Sophora pachycarpa*, *Sophora tetraptera*, many other *Sophora* spp., *Goebelia pachycarpa*, *Vexibia pachycarpa* and *Euchresta horsfeldii* (Leguminosae)

Melting Point: Mp 77°

Optical Rotation: [α]_D¹⁵+40.9 (H₂O)

Other Data: Pharmacol. active isomer

Hazard & Toxicity: LD₅₀ (rat, ipr) 125 mg/kg

>>Derivative: Hydrobromide

Melting Point: Mp 272-275°

>>Derivative: Perchlorate

Melting Point: Mp 214.5-216°

>>Derivative: *N*¹-Oxide

Synonym(s): Oxymatrine. Matrine *N*-oxide. Ammothamnine. Pachycarpidine

CAS Registry Number: 16837-52-8

Molecular Formula: C₁₅H₂₄N₂O₂

Molecular Weight: 264.367

Accurate Mass: 264.183778

Percentage Composition: C 68.15%; H 9.15%; N 10.60%; O 12.10%

Biological Source: Alkaloid from *Sophora flavescens*, *Sophora macrocarpa*, *Ammothamnus lehmannii*, *Euchresta horsfeldii* and other plants (Leguminosae)

Melting Point: Mp 208° (148-150°)

Optical Rotation: [α]_D +47 (EtOH)

>>Derivative: 3α-Hydroxy

Synonym(s): 3α-Hydroxymatrine

CAS Registry Number: 81970-01-6