



CAS Registry Number: 57157-67-2

Molecular Formula: C₁₉H₂₃NO₄

Molecular Weight: 329.395

Accurate Mass: 329.162709

Percentage Composition: C 69.28%; H 7.04%; N 4.25%; O 19.43%

Biological Source: Alkaloid from *Papaver orientale* and *Papaver pseudo-orientale* (Papaveraceae)

Physical Description: Cryst. (petrol)

Melting Point: Mp 109°

Optical Rotation: $[\alpha]_D^{20} +93$ (c, 0.45 in CHCl₃)

Other Data: Proposed struct. Cryst. with difficulty, not obt. completely pure

>>**Derivative:** 5,6-Dihydro; methiodide

Melting Point: Mp 186-188°

>>**Derivative:** 5,6-Dihydro, 2,4-dinitrophenylhydrazone

Melting Point: Mp 110-115°

>>**Derivative:** 5,6-Dihydro, *N*-de-Me

Synonym(s): *N*-Noralkaloid Or₁

CAS Registry Number: 199527-84-9

Molecular Formula: C₁₈H₂₁NO₄

Molecular Weight: 315.368

Accurate Mass: 315.147059

Percentage Composition: C 68.55%; H 6.71%; N 4.44%; O 20.29%

Biological Source: Alkaloid from *Papaver pseudo-orientale*

>>**Variant:** (-)-form

CAS Registry Number: 4090-18-0

Molecular Formula: C₁₉H₂₁NO₄

Molecular Weight: 327.379

Accurate Mass: 327.147059

Percentage Composition: C 69.71%; H 6.47%; N 4.28%; O 19.55%

Biological Source: Alkaloid from *Sinomenium acutum*, *Corydalis* spp., *Glacium* spp., *Nandina* (Menispermaceae, Fumariaceae, Papaveraceae, Nandinaceae). Also among the Lauraceae

Melting Point: Mp 198°

Optical Rotation: $[\alpha]_D^{16} -112$ (EtOH)

>>**Derivative:** Perchlorate

Melting Point: Mp 117°

>>**Derivative:** Methiodide

Melting Point: Mp 216°

>>**Derivative:** Me ether; methiodide

Physical Description: Cryst. + Me₂CO

Melting Point: Mp 163-165°