



**Percentage Composition:** C 70.72%; H 7.99%; N 3.17%; O 18.12%

**Biological Source:** Alkaloid from the rhizomes of *Aconitum yesoense* var. *macroyesoense* (Ranunculaceae)

**Physical Description:** Amorph.

**Optical Rotation:**  $[\alpha]_D +9.3$  (c, 0.43 in EtOH)

>> **Derivative:** 12-Epimer

**Synonym(s):** 12-Epidehydronapelline

**CAS Registry Number:** 116197-11-6

**Molecular Formula:**  $C_{22}H_{31}NO_3$

**Molecular Weight:** 357.492

**Accurate Mass:** 357.230394

**Percentage Composition:** C 73.92%; H 8.74%; N 3.92%; O 13.43%

**Biological Source:** Alkaloid from above-ground parts of *Aconitum napellus* ssp. *castellanum* (Ranunculaceae) and from *Aconitum liangshanium*

**Physical Description:** Resin or amorph. solid

**Optical Rotation:**  $[\alpha]_D +45$  (c, 0.17 in EtOH).  $[\alpha]_D^{23} +56.8$  (c, 1.02 in  $CHCl_3$ )

>> **Derivative:** 12-Epimer,  $O^{12}$ -Ac

**Synonym(s):** 12-Epiacetyldehydronapelline

**CAS Registry Number:** 116171-99-4

**Molecular Formula:**  $C_{24}H_{33}NO_4$

**Molecular Weight:** 399.529

**Accurate Mass:** 399.240959

**Percentage Composition:** C 72.15%; H 8.32%; N 3.51%; O 16.02%

**Biological Source:** Alkaloid from above-ground parts of *Aconitum napellus* ssp. *castellanum* (Ranunculaceae)

**Physical Description:** Resin

**Optical Rotation:**  $[\alpha]_D +25$  (c, 0.22 in EtOH)

>> **Derivative:** 12-Epimer,  $O^{15}$ -Ac

**Synonym(s):** 12-Epidehydrolucidusculine

**CAS Registry Number:** 137121-73-4

**Molecular Formula:**  $C_{24}H_{33}NO_4$

**Molecular Weight:** 399.529

**Accurate Mass:** 399.240959

**Percentage Composition:** C 72.15%; H 8.32%; N 3.51%; O 16.02%

**Biological Source:** Alkaloid from *Aconitum liangshanium* (Ranunculaceae)

**Physical Description:** Amorph.

**Optical Rotation:**  $[\alpha]_D^{23} -9.6$  (c, 1.2 in  $CHCl_3$ )

>> **Derivative:** 12-Ketone

**Synonym(s):** Songoramine

**CAS Registry Number:** 23179-78-4

**Molecular Formula:**  $C_{22}H_{29}NO_3$

**Molecular Weight:** 355.476

**Accurate Mass:** 355.214744

**Percentage Composition:** C 74.33%; H 8.22%; N 3.94%; O 13.50%

**Biological Source:** Alkaloid from *Aconitum karakolicum* and roots of *Aconitum songoricum* (Ranunculaceae)

**Physical Description:** Cryst. ( $Me_2CO$ )

**Melting Point:** Mp 211-212°

>> **Derivative:** 12-Ketone: hydrochloride

**Melting Point:** Mp 290 dec.°