



**Optical Rotation:**  $[\alpha]_{\text{D}} -76$  (MeOH)

>>Derivative:  $O^3$ - $\beta$ -D-Glucopyranoside

**Synonym(s):** Pseudojervine

**CAS Registry Number:** 36069-05-3

**Molecular Formula:**  $\text{C}_{33}\text{H}_{49}\text{NO}_8$

**Molecular Weight:** 587.752

**Accurate Mass:** 587.345819

**Percentage Composition:** C 67.44%; H 8.40%; N 2.38%; O 21.78%

**Biological Source:** Alkaloid from *Veratrum album* and some other *Veratrum* spp. (Liliaceae)

**Melting Point:** Mp 300-301°

**Optical Rotation:**  $[\alpha]_{\text{D}} -131$  ( $\text{CHCl}_3/\text{EtOH}$  1:1).  $[\alpha]_{\text{D}}^{25} -97$  (c, 0.12 in  $\text{CHCl}_3/\text{EtOH}$ )

**Solubility:** BERDY SOL: Sol.  $\text{CHCl}_3$ ,  $\text{C}_6\text{H}_6$ ; fairly sol. EtOH; poorly sol.  $\text{Et}_2\text{O}$

**Hazard & Toxicity:** BERDY HAZD : LD<sub>50</sub> (mus, ivn) 50 - 150 mg/kg

>>Derivative: 3-Ketone

**Synonym(s):** Jervinone

**Molecular Formula:**  $\text{C}_{27}\text{H}_{37}\text{NO}_3$

**Molecular Weight:** 423.594

**Accurate Mass:** 423.277344

**Percentage Composition:** C 76.56%; H 8.80%; N 3.31%; O 11.33%

**Biological Source:** Alkaloid from rhizomes of *Veratrum album* (Liliaceae)

**Physical Description:** Amorph. powder

**Melting Point:** Mp 246-248°

**Optical Rotation:**  $[\alpha]_{\text{D}}^{25} +38.5$  (c, 1.00 in  $\text{CHCl}_3$ )

>>Derivative: 11 $\beta$ -Alcohol

**Synonym(s):** Veratrobazine. Jervin-11 $\beta$ -ol

**CAS Registry Number:** 20226-97-5

**Molecular Formula:**  $\text{C}_{27}\text{H}_{41}\text{NO}_3$

**Molecular Weight:** 427.626

**Accurate Mass:** 427.308644

**Percentage Composition:** C 75.84%; H 9.66%; N 3.28%; O 11.22%

**Biological Source:** Alkaloid from *Veratrum album* (Liliaceae)

**Physical Description:** Large prisms ( $\text{C}_6\text{H}_6/\text{MeOH}$ )

**Melting Point:** Mp 285-288° (dec. from 270°)

**Optical Rotation:**  $[\alpha]_{\text{D}} -76.6$  (c, 0.58 in 95% EtOH).  $[\alpha]_{\text{D}}^{20} -126$  (c, 0.65 in Py)

**Hazard & Toxicity:** Teratogenic

>>Derivative: 11 $\beta$ -Alcohol, 3,11-di-Ac

**Melting Point:** Mp 208-210°

**Optical Rotation:**  $[\alpha]_{\text{D}}^{20} -77$  (c, 0.46 in Py)

>>Derivative: 11-Deoxo

**Synonym(s):** Cyclopamine. Alkaloid V. 11-Deoxojervine

**CAS Registry Number:** 4449-51-8

**Molecular Formula:**  $\text{C}_{27}\text{H}_{41}\text{NO}_2$

**Molecular Weight:** 411.626

**Accurate Mass:** 411.313729

**Percentage Composition:** C 78.78%; H 10.04%; N 3.40%; O 7.77%

**Biological Source:** Isol. from *Veratrum californicum* and *Veratrum album* (Liliaceae)

**Use/Importance:** Severe teratogen responsible for cyclopic malformation in sheep grazing on *V. californicum*

**Physical Description:** Needles (EtOH)

**Melting Point:** Mp 237-238°

**Optical Rotation:**  $[\alpha]_{\text{D}}^{25} -48$  (c, 1 in  $\text{MeOH}/\text{CHCl}_3$  2:1)

**Hazard & Toxicity:** Exp. reprod. and teratogenic effects