

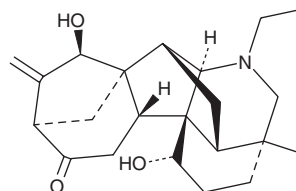
PRODUCT INFORMATION



Songorine

Item No. 34601

CAS Registry No.: 509-24-0
Formal Name: (3R,6S,6aR,6bR,9R,11R,11aR,12R,12aR,14R)-1-ethyldodecahydro-6,11-dihydroxy-3-methyl-10-methylene-12,3,6a-ethanylylidene-9,11a-methanoazuleno[2,1-b]azocin-8(9H)-one
MF: C₂₂H₃₁NO₃
FW: 357.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Aconitum* sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Songorine is supplied as a solid. A stock solution may be made by dissolving the songorine in the solvent of choice, which should be purged with an inert gas. Songorine is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of songorine in these solvents is approximately 5 and 10 mg/ml, respectively. Songorine is also slightly soluble in ethanol.

Songorine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Songorine should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Songorine has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Songorine is a diterpene alkaloid that has been found in *Aconitum* and has diverse biological activities.¹⁻⁴ It is an antagonist of the GABA_A receptor (IC₅₀ = 7.06 μM in rat brain membranes).¹ Songorine (20-80 μM) reduces the viability and migration of, and induces apoptosis in, SKOV3 and A2780 epithelial ovarian cancer cells.² It also decreases the levels of β-catenin and phosphorylated GSK3β in the same cells and reduces tumor growth in a SKOV3 mouse xenograft model when administered at doses of 0.25 and 2.5 mg/kg. Songorine (0.025 mg/kg) prevents and inhibits paw edema in a mouse model of carrageenan-induced inflammation.³ It also has antinociceptive activity in the early phase of the formalin test in mice when administered at a dose of 46.4 mg/kg.⁴

References

1. Zhao, X.-Y., Wang, Y., Li, Y., *et al.* Songorine, a diterpenoid alkaloid of the genus *Aconitum*, is a novel GABA_A receptor antagonist in rat brain. *Neurosci. Lett.* **337(1)**, 33-36 (2003).
2. Zhang, H., Dong, R., Zhang, P., *et al.* Songorine suppresses cell growth and metastasis in epithelial ovarian cancer via the Bcl 2/Bax and GSK3β/β catenin signaling pathways. *Oncol. Rep.* **41(5)**, 3069-3079 (2019).
3. Nesterova, Y.V., Povetieva, T.N., Suslov, N.I., *et al.* Anti-inflammatory activity of diterpene alkaloids from *Aconitum baikalense*. *Bull. Exp. Biol. Med.* **156(5)**, 665-668 (2014).
4. Friese, J., Gleitz, J., Gutser, U.T., *et al.* *Aconitum* sp. alkaloids: The modulation of voltage-dependent Na⁺ channels, toxicity and antinociceptive properties. *Eur. J. Pharmacol.* **337(2-3)**, 165-174 (1997).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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