

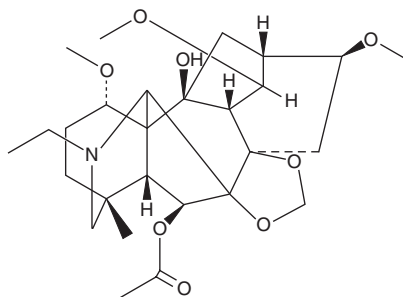
PRODUCT INFORMATION



Deltaline

Item No. 34612

CAS Registry No.: 6836-11-9
Formal Name: (1 α ,6 β ,14 α ,16 β)-20-ethyl-1,14,16-trimethoxy-4-methyl-7,8-[methylenebis(oxy)]-6-acetate, aconitane-6,10-diol
MF: C₂₇H₄₁NO₈
FW: 507.6
Purity: \geq 95%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Aconitum carmichaelii*



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

Laboratory Procedures

Deltaline is supplied as a solid. A stock solution may be made by dissolving the deltaline in the solvent of choice, which should be purged with an inert gas. Deltaline is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of deltaline in these solvents is approximately 10, 20, and 30 mg/ml, respectively.

Deltaline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, deltaline should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Deltaline has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Deltaline is an alkaloid and a toxin that has been found in *D. barbeyi*.^{1,2} It reduces sciatic nerve stimulation-induced compound muscle action potentials (CMAPs) in isolated lizard extensor digitorum longus muscle (IC₅₀ = 156 μ M).¹ Deltaline (85 mg/kg) increases the number of falls from a beam and decreases the time spent mobile in an open field test, markers of neuromuscular impairment, in mice.² It also induces lethality in mice (LD₅₀ = 113 mg/kg).

References

1. Dobelis, P., Madl, J.E., Pfister, J.A., *et al.* Effects of *Delphinium* alkaloids on neuromuscular transmission. *J. Pharmacol. Exp. Ther.* **291**(2), 538-546 (1999).
2. Welch, K.D., Pfister, J.A., Lima, F.G., *et al.* Effect of α_7 nicotinic acetylcholine receptor agonists and antagonists on motor function in mice. *Toxicol. Appl. Pharmacol.* **66**(3), 366-374 (2013).

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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