

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(oxyl)]-6-acetate, aconitane-6,10-diol

MF: C₂₇H₄₁NO₈

FW: 507.6

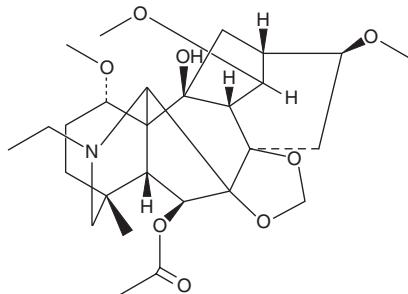
Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥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 μM).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, 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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 - USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM