

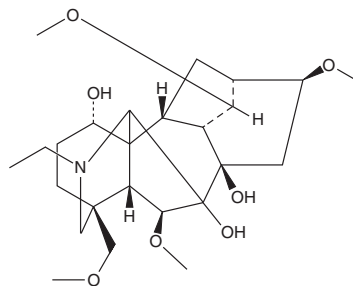
# PRODUCT INFORMATION



## Delsoline

Item No. 31748

**CAS Registry No.:** 509-18-2  
**Formal Name:** (1 $\alpha$ ,6 $\beta$ ,14 $\alpha$ ,16 $\beta$ )-20-ethyl-6,14,16-trimethoxy-4-(methoxymethyl)-aconitane-1,7,8-triol  
**Synonym:** Acomonine  
**MF:** C<sub>25</sub>H<sub>41</sub>NO<sub>7</sub>  
**FW:** 467.6  
**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

Delsoline is supplied as a solid. A stock solution may be made by dissolving the delsoline in the solvent of choice, which should be purged with an inert gas. Delsoline is soluble in chloroform and methanol.

### Description

Delsoline is a diterpene alkaloid that has been found in *Delphinium* and has diverse biological activities.<sup>1-3</sup> It inhibits binding of  $\alpha$ -bungarotoxin (Item No. 16385) to rat neuronal  $\alpha$ 7 nicotinic acetylcholine receptors (nAChRs; IC<sub>50</sub> = 19  $\mu$ M).<sup>1</sup> Delsoline (3 mg/ml) is repellent against adult red flour beetles (*T. castaneum*) in a filter paper assay.<sup>2</sup> *In vivo*, delsoline (75 mg/kg) lowers systolic blood pressure in a rat model of left renal artery ligation-induced hypertension.<sup>3</sup>

### References

1. Hardick, D.J., Blagbrough, I.S., Cooper, G., *et al.* Nudicauline and elatine as potent norditerpenoid ligands at rat neuronal alpha-bungarotoxin binding sites: Importance of the 2-(methylsuccinimido)benzoyl moiety for neuronal nicotinic acetylcholine receptor binding. *J. Med. Chem.* **39(24)**, 4860-4866 (1996).
2. Ulubelen, A., Meriçli, A.H., Kiliçer, N., *et al.* Insect repellent activity of diterpenoid alkaloids. *Phytother. Res.* **15(2)**, 170-171 (2001).
3. Lian, Q.S. and Feng, G.H. Hypotensive effect of delsoline. *Zhongguo Yaoli Xuebao* **6(1)**, 37-40 (1985).

#### 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, 11/01/2022

#### 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