

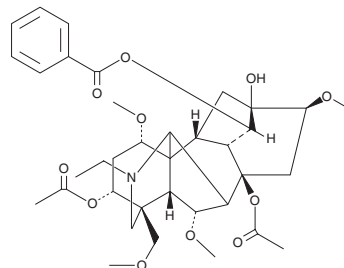
# PRODUCT INFORMATION



## 3-Acetylaconitine

Item No. 36155

**CAS Registry No.:** 77181-26-1  
**Formal Name:** 20-ethyl-1 $\alpha$ ,6 $\alpha$ ,16 $\beta$ -trimethoxy-4-(methoxymethyl)-aconitane-3 $\alpha$ ,8,13,14 $\alpha$ ,15 $\alpha$ -pentol, 3,8-diacetate 14-benzoate  
**Synonyms:** Flaconitine, Monoacetylaconitine  
**MF:** C<sub>36</sub>H<sub>49</sub>NO<sub>12</sub>  
**FW:** 687.8  
**Purity:**  $\geq 95\%$   
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq 4$  years  
**Item Origin:** Plant/*Aconitum pendulum*



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

### Laboratory Procedures

3-Acetylaconitine is supplied as a solid. A stock solution may be made by dissolving the 3-acetylaconitine in the solvent of choice, which should be purged with an inert gas. 3-Acetylaconitine is soluble in acetone, chloroform, dichloromethane, ethyl acetate, and DMSO.

### Description

3-Acetylaconitine is a diterpene alkaloid that has been found in *Aconitum* and has diverse biological activities.<sup>1,2</sup> It is cytotoxic to P388 leukemia cells (IC<sub>50</sub> = 18.6  $\mu$ M).<sup>1</sup> It inhibits brevetoxin binding to (IC<sub>50</sub> = 1.3  $\mu$ M), and increases free sodium and calcium concentrations in, rat brain synaptosomes. 3-Acetylaconitine (60-100 nM) induces arrhythmia in isolated guinea pig atria.<sup>2</sup> *In vivo*, 3-acetylaconitine (100  $\mu$ g/kg, i.v.) reduces paw licking, flicking, and shaking in a mouse model of formalin-induced inflammatory pain.

### References

1. He, Y.-Q., Yao, B.-H., and Ma, Z.-Y. Diterpenoid alkaloids from a Tibetan medicinal plant *Aconitum richardsonianum* var. *pseudosessiliflorum* and their cytotoxic activity. *J. Pharm. Anal.* **1**(1), 57-59 (2011).
2. Gutser, U.T., Friese, J., Heubach, J.F., et al. Mode of antinociceptive and toxic action of alkaloids of *Aconitum* spec. *Naunyn Schmiedebergs Arch. Pharmacol.* **375**(1), 39-48 (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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#### 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](http://WWW.CAYMANCHEM.COM)