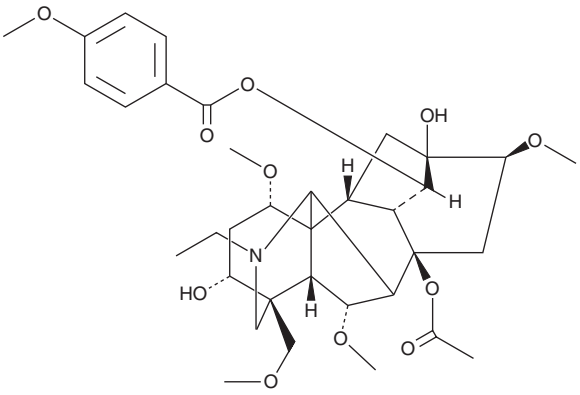
PRODUCT INFORMATION

Yunaconitine

Item No. 34127

CAS Registry No.:	70578-24-4
Formal Name:	(1α,3α,6α,14α,16β)-20-ethyl-1,6,16-trimethoxy-4-(methoxymethyl)-aconitane-3,8,13,14-tetrol, 8-acetate 14-(4-methoxybenzoate)
Synonyms:	Guayewuanine B, Yunnaconitine
MF:	$C_{35}H_{49}NO_{11}$
FW:	659.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 260 nm
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

Yunaconitine is supplied as a a solid. A stock solution may be made by dissolving the yunaconitine in the solvent of choice, which should be purged with an inert gas. Yunaconitine is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of yunaconitine in these solvents is approximately 1 mg/ml.

Yunaconitine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, yunaconitine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Yunaconitine has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Yunaconitine is a diterpenoid alkaloid that has been found in *A. vilmorinianum* and has diverse biological activities.[1] It is active against *E. coli* and *B. subtilis* (MICs = 32 and 8 µg/ml, respectively).[1] Yunaconitine acts as a metal chelator, inhibiting ferrozine-Fe^{2+} complex formation with an IC_{50} value of 11.6 µg/ml. Yunaconitine has been found in the urine of patients with aconite poisoning.[2]

References

1. Yin, T.-P., Cai, L., Fang, H.-X., *et al.* Diterpenoid alkaloids from *Aconitum vilmorinianum*. *Phytochemistry* **116**, 314-319 (2015).
2. Lai, C.-K., Poon, W.-T., and Chan, Y.-W. Hidden aconite poisoning: Identification of yunaconitine and related aconitum alkaloids in urine by liquid chromatography-tandem mass spectrometry. *J. Anal. Toxicol.* **30(7)**, 426-433 (2006).

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