

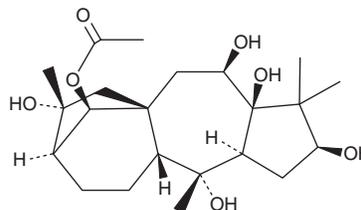
# PRODUCT INFORMATION



## Grayanotoxin I

Item No. 42644

**CAS Registry No.:** 4720-09-6  
**Formal Name:** grayanotoxane-3 $\beta$ ,5,6 $\beta$ ,10,14R,16-hexol, 14-acetate  
**Synonyms:** Acetyl-andromedol, Andromedotoxin, Asebotoxin, GTX I, NSC 26711, Rhodotoxin  
**MF:** C<sub>22</sub>H<sub>36</sub>O<sub>7</sub>  
**FW:** 412.5  
**Purity:**  $\geq$ 98%  
**Supplied as:** A solution in acetonitrile:water (1:1)  
**Storage:** -20°C  
**Stability:**  $\geq$ 1 year  
**Item Origin:** Plant/*Rhododendron ponticum*



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

### Description

Grayanotoxin I is a diterpene toxin that has been found in *R. ponticum* nectar, a component of mad honey.<sup>1</sup> It increases resting sodium permeability in squid axonal membranes when used at a concentration of 10  $\mu$ M.<sup>2</sup> Grayanotoxin I (0.25, 0.5, and 1 mg/kg) induces proteinuria and reduces serum levels of alanine transaminase (ALT), also known as glutamic pyruvic transaminase (GPT), in rats.<sup>3</sup> It also induces hepatic focal necrosis and central vein dilation in the same model when administered at a dose of 1 mg/kg. Grayanotoxin I is toxic to mice (LD<sub>50</sub> = 1.31 mg/kg).<sup>4</sup>

### References

1. Kurtoglu, A.B., Yavuz, R., and Evrendilek, G.A. Characterisation and fate of grayanotoxins in mad honey produced from *Rhododendron ponticum* nectar. *Food Chem.* **161**, 47-52 (2014).
2. Narahashi, T. and Seyama, I. Mechanism of nerve membrane depolarization caused by grayanotoxin I. *J. Physiol.* **242**(2), 471-487 (1974).
3. Aşçıoğlu, M., Özesmi, Ç., Doğan, P., et al. Effects of acute grayanotoxin-I administration on hepatic and renal functions in rats. *Turk. J. Med. Sci.* **30**(1), 23-27 (2000).
4. Hikino, H., Ohta, T., Ogura, M., et al. Structure-activity relationship of ericaceous toxins on acute toxicity in mice. *Toxicol. Appl. Pharmacol.* **35**(2), 303-310 (1976).

#### 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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