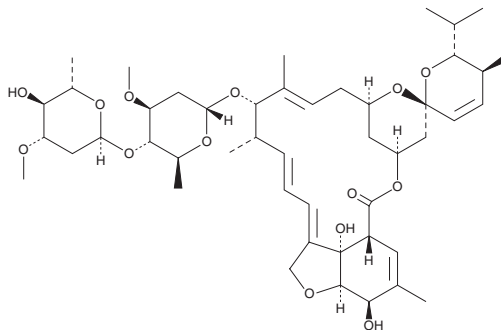


# PRODUCT INFORMATION



## Avermectin B<sub>1b</sub> Item No. 17453

**CAS Registry No.:** 65195-56-4  
**Formal Name:** 5-O-demethyl-25-de(1-methylpropyl)-  
25-(1-methylethyl)-avermectin A<sub>1a</sub>  
**Synonyms:** Abamectin B<sub>1b</sub>, Antibiotic C 076B<sub>1b</sub>  
**MF:** C<sub>47</sub>H<sub>70</sub>O<sub>14</sub>  
**FW:** 859.1  
**Purity:** ≥85%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Bacterium/*Streptomyces avermitilis*



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

### Laboratory Procedures

Avermectin B<sub>1b</sub> is supplied as a solid. A stock solution may be made by dissolving the avermectin B<sub>1b</sub> in the solvent of choice, which should be purged with an inert gas. Avermectin B<sub>1b</sub> is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

### Description

Avermectins are insecticides and anthelmintics first isolated from broths fermented by *S. avermitilis*.<sup>1</sup> They potentiate glutamate- and GABA-gated chloride channel opening in nematodes.<sup>2,3</sup> Avermectin B<sub>1b</sub> is a minor component of avermectin broth.<sup>2</sup> Avermectins, including avermectin B<sub>1b</sub>, are used broadly against nematodes, ticks, flies, and ants.<sup>2</sup>

### References

1. Egerton, J.R., Ostlind, D.A., Blair, L.S., *et al.* Avermectins, new family of potent anthelmintic agents: Efficacy of the B<sub>1a</sub> component. *Antimicrob. Agents Chemother.* **15(3)**, 372-378 (1979).
2. Duke, S.O., Cantrell, C.L., Meepagala, K.M., *et al.* Natural toxins for use in pest management. *Toxins (Basel)* **2(8)**, 1943-1962 (2010).
3. Arena, J.P., Liu, K.K., Pares, P.S., *et al.* The mechanism of action of avermectins in *Caenorhabditis elegans*: Correlation between activation of glutamate-sensitive chloride current, membrane binding, and biological activity. *J. Parasitol.* **81**, 286-294 (1995).

#### 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