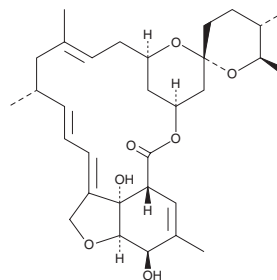


PRODUCT INFORMATION



Milbemycin A₃ Item No. 18360

CAS Registry No.: 51596-10-2
Formal Name: (6R,25R)-5-O-demethyl-28-deoxy-6,28-epoxy-25-methyl-milbemycin B
Synonyms: Antibiotic B 41A3, Milbemycin α 1
MF: C₃₁H₄₄O₇
FW: 528.7
Purity: \geq 85%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Bacterium/*Streptomyces hygroscopicus*



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

Laboratory Procedures

Milbemycin A₃ is supplied as a solid. A stock solution may be made by dissolving the milbemycin A₃ in the solvent of choice, which should be purged with an inert gas. Milbemycin A₃ is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Milbemycin A₃ is a member of a complex family of macrocyclic lactones that contain a characteristic spiroketal group produced from the fermentation of soil bacterium *S. hygroscopicus* subsp. *aureolacrimosus*.¹ As a compound that potentiates glutamate and GABA-gated chloride-channel opening, milbemycin A₃ is used as a nematocide and insecticide.¹ The acaricidal and nematocidal activity of a mixture of milbemycin A₃ and milbemycin A₄ (Item No. 17155) against adult spider mites, spider mite eggs, and *C. elegans* are reported at IC₅₀ values of 5.3, 41.1, and 9.5 μ g/ml.²

References

1. 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).
2. Yang, L.-Y., Wang, J.-D., Zhang, J., *et al.* New nemadectin congeners with acaricidal and nematocidal activity from *Streptomyces microflavus* neau3 Y-3. *Bioorg. Med. Chem. Lett.* **23(20)**, 5710-5713 (2013).

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

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