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Zuschläge

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- Trockeneiszuschlag
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- Expressversand

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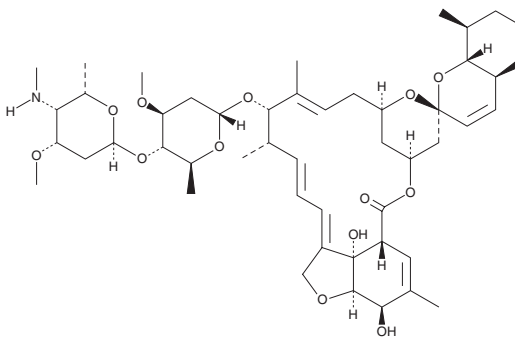
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PRODUCT INFORMATION



Emamectin B_{1a} Item No. 24060

CAS Registry No.: 121124-29-6
Formal Name: (4''R)-5-O-demethyl-4''-deoxy-4''-(methylamino)-avermectin A_{1a}
Synonym: L-656,748
MF: C₄₉H₇₅NO₁₃
FW: 886.1
Purity: ≥99%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Emamectin B_{1a} is supplied as a solid. A stock solution may be made by dissolving the emamectin B_{1a} in the solvent of choice. Emamectin B_{1a} is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Description

Emamectin B_{1a} is a semisynthetic derivative of avermectin B_{1a} (Item No. 22000).¹ It binds to GABA_A receptors ($K_i = 17.6$ nM in rat brain membranes), including those containing β_1 , β_2 , or β_3 subunits (IC_{50} s = 57, 210, and 49.8 nM for $\alpha_1\beta_1\gamma_2$, $\alpha_1\beta_2\gamma_2$, and $\alpha_1\beta_3\gamma_2$ subunits, respectively), and potentiates the GABA response.² Emamectin B_{1a} also binds to and inhibits glycine receptors ($IC_{50} = 218$ nM in rat spinal cord). Emamectin B_{1a} induces mortality in 90% of *S. exigua* larvae in a diet incorporation assay at a dose of 1.067 ng/ml, which is approximately 1,500-fold more toxic than avermectin B₁. It is effective against neonate *S. eridania* larvae in a foliage spray bioassay and when applied topically.

References

1. Mrozik, H., Eskola, P., Linn, B.O., *et al.* Discovery of novel avermectins with unprecedented insecticidal activity. *Experientia* **45**(3), 315-316 (1989).
2. Dawson, G.R., Wafford, K.A., Smith, A., *et al.* Anticonvulsant and adverse effects of avermectin analogs in mice are mediated through the γ -aminobutyric acid A receptor. *J. Pharmacol. Exp. Ther.* **295**(3), 1051-1060 (2000).

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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