

PRODUCT INFORMATION

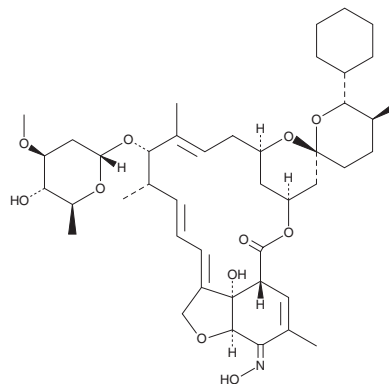


Selamectin

Item No. 21529

CAS Registry No.: 220119-17-5
Formal Name: (5Z)-25-cyclohexyl-4'-O-de(2,6-dideoxy-3-O-methyl- α -L-arabino-hexopyranosyl)-5-demethoxy-25-de(1-methylpropyl)-22,23-dihydro-5-(hydroxyimino)-ivermectin A_{1a}

MF: C₄₃H₆₃NO₁₁
FW: 770.0
Purity: \geq 98%
UV/Vis.: λ_{max} : 246 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Selamectin is supplied as a crystalline solid. A stock solution may be made by dissolving the selamectin in the solvent of choice. Selamectin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of selamectin in these solvents is approximately 15 mg/ml.

Selamectin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, selamectin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Selamectin has a solubility of approximately 0.33 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Selamectin is a macrocyclic lactone derivative of ivermectin, an anthelmintic that potentiates glutamate- and GABA-gated chloride channel opening in nematodes.^{1,2} At 0.1 $\mu\text{g/ml}$, selamectin is reported to inhibit growth in an *H. contortus* larval development assay.²

References

1. Holden-Dye, L. and Walker, R.J. Anthelmintic drugs and nematicides: Studies in *Caenorhabditis elegans*. *WormBook* **16**, 1-30 (2014).
2. Michael, B., Meinke, P.T., and Shoop, W. Comparison of ivermectin, doramectin, selamectin, and eleven intermediates in a nematode larval development assay. *J. Parasitol.* **87**(3), 692-696 (2001).

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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