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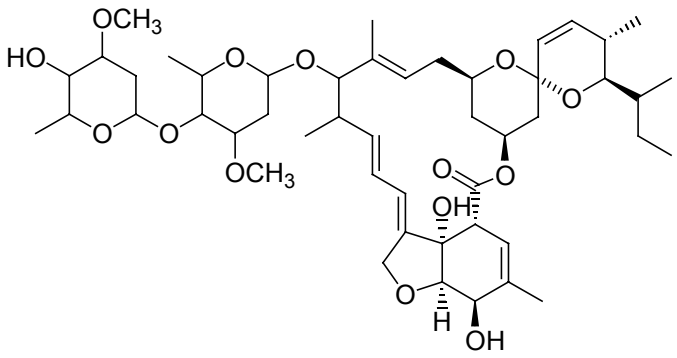
PRODUCT DATA SHEET

Avermectin B1a

Code: **BIA-A1010**

Pack sizes: **1.0 mg, 5.0 mg**



Synonyms : **5-O-Demethylavermectin A1a, Antibiotic C 076B1a**

Specifications

CAS #	:	**65195-55-3**
Molecular Formula	:	**$C_{48}H_{72}O_{14}$**
Molecular Weight	:	**873.1**
Source	:	***Streptomyces avermitilis* MST-AS4526**
Appearance	:	**White solid**
Purity	:	**>99% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

Avermectin B1a is the major component (>80%) of the commerically available anthelmintic Abamectin® used to control parasitic nematodes in livestock. Avermectin B1a contains a *sec*butyl residue in the 25-position. *In vitro* and *in vivo* studies have shown this analogue is the more potent analogue in the commerical product.

References

1. Avermectin B1a irreversibly blocks postsynaptic potentials at the lobster neuromuscular junction by reducing muscle membrane resistance. Fritz L.C. et al. *Proc. Natl Acad. Sci. USA* **1979**, 76, 2062.
2. Solubilization and characterization of a high affinity ivermectin binding site from *Caenorhabditis elegans*. Cully D.F. et al. *Mol Pharmacol.* **1991**, 40, 326.
3. Glutamate-gated chloride channels and the mode of action of the avermectin/milbemycin anthelmintics. Wolstenholme A.J. & Rogers A.T. *Parasitology* **2005**, 131, S85-95.

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