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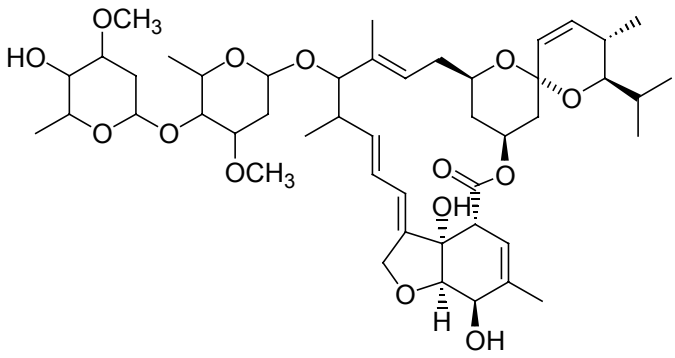
PRODUCT DATA SHEET

Avermectin B1b

Code: **BIA-A1011**

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



Synonyms : **Antibiotic C 076B1b**

Specifications

CAS #	:	**65195-56-4**
Molecular Formula	:	**$C_{47}H_{70}O_{14}$**
Molecular Weight	:	**859.1**
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 B1b is the minor component (<20%) of the commerically available anthelmintic marketed as Abamectin® used to control parasitic nematodes in livestock. Avermectin B1b contains a *iso*propyl residue in the 25-position. *In vitro* and *in vivo* studies show this analogue to be active, but less potent than the B1a analogue

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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