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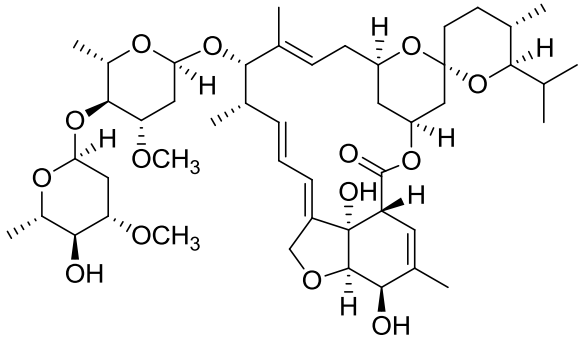
PRODUCT DATA SHEET

Ivermectin B1b

Code No.: **BIA-I1117**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms : Dihydroavermectin B1b, 22,23-Dihydroavermectin B1b

Specifications

CAS #	:	**70209-81-3**
Molecular Formula	:	**$C_{47}H_{72}O_{14}$**
Molecular Weight	:	**861.1**
Source	:	**Semi-synthetic**
Appearance	:	**White solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.**

Application Notes

Ivermectin B1b (dihydroavermectin B1b) is the minor component (<20%) of the commercial anthelmintic, ivermectin. Members of the avermectin/milbemycin anthelmintic class exert their anthelmintic effects by binding to glutamate-gated chloride channels expressed on nematode neurones and pharyngeal muscle cells. The avermectin/milbemycins are also potent insecticides. In vitro, the B1b (25-iso-propyl) analogue is slightly more potent than the 25-sec-butyl (B1a) analogue as an inhibitor of nematode larval development and paralysis, and also a more sensitive probe for ivermectin resistance.

References

1. Ivermectin, a new broad-spectrum antiparasitic agent. Chabala J.C. et al. J. Med. Chem. 1980, 23, 1134.
2. Glutamate-gated chloride channels and the mode of action of the avermectin/milbemycin anthelmintics. Wolstenholme A.J & Rogers A.T. Parasitology, 2005, 131, S85.
3. Avermectin/milbemycin resistance in trichostrongylid nematodes. Gill J.H. & Lacey E. Int J. Parasitol. 1998, 28, 863.
4. Ivermectin: a potent new antiparasitic agent. Campbell W.C. et al. , Science, 1983, 221, 823.

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