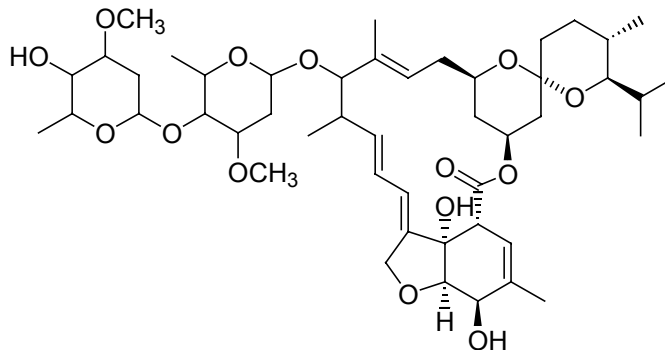


## Dihydroavermectin B1b

Code: **BIA-D1117**

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



Synonyms : **Ivermectin B1b, 22, 23-Dihydro-avermectin B1b**

### Specifications

CAS # : **70209-81-3**  
Molecular Formula : **C<sub>47</sub>H<sub>72</sub>O<sub>14</sub>**  
Molecular Weight : **861.1**  
Source : ***Streptomyces avermitilis* MST-AS4526, semi-synthetic**  
Appearance : **White solid**  
Purity : **> 99% by HPLC**  
Long Term Storage : **-20°C**  
Solubility : **Soluble in ethanol, methanol, DMF or DMSO.**

### Application Notes

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 tests have found the B1b (25-iso-propyl) analogue to be 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of nematode larval development and paralysis and also a more sensitive probe for ivermectin resistance (Gill & Lacey, unpublished data).

### 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.