

Product Name: Ivermectin B1a

Product Number: I025

CAS Number: 70161-11-4

Molecular Formula: $C_{48}H_{74}O_{14}$

Molecular Weight: 875.1

Appearance: White solid

Storage Conditions: -20°C

Description: Ivermectin B1a (dihydroavermectin B1a) is the major component (>80%) 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 avermectins and milbemycins are also potent insecticides. The individual 25-sec-butyl (B1a) and 25-iso-propyl (B1b) components of ivermectin have received little separate study.

Ivermectin B1a is soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.

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