
Product Data Sheet

Product Name: Milbemycin D

Cat. No.: GC18668

Chemical Properties

Cas. No. 77855-81-3

Chemical Name 5-O-demethyl-28-deoxy-6R,28-epoxy-25R-(1-methylethyl)-milbemycin B

SMILES O=C([C@@]1([H])[C@@]2(O)[C@@]3([H])[C@H](O)C(C)=C1)O[C@@]4([H])C[C@](C/C=C(C)/C[C@@H](C)/C=C/C=C2\CO3)([H])O[C@]5(O[C@H](C(C)C)[C@H](C)CC5)C4

Formula C₃₃H₄₈O₇ M.Wt 556.7

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Milbemycin D is an insecticidal and anthelmintic antibiotic originally isolated from *S. hygroscopicus*. It is toxic to third instar gypsy moth larvae with an LD50 value of 0.119 ug/g but not to sixth instar larvae. Milbemycin D eradicates *A. caninum* and is effective against *T. canis* in dogs when administered at doses of 0.05 and 0.1 mg/kg. It prevents *D. immitis* infection in dogs, but is not effective against *T. vulpis* or *D. caninum*. Milbemycin D also activates glutamate- (EC50 = 89 nM) and GABA-gated chloride channels.

Caution: Product has not been fully validated for medical applications. For research use only.

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