

PRODUCT DATA SHEET

Code No.: BIA-M1299

Pack sizes: 5 mg, 25 mg

Milbemycin oxime

Synonyms :

Specifications

CAS # : 129496-10-2

Molecular Formula : C₃₂H₄₅NO₇ (for Milbemycin A₄ oxime)

Molecular Weight : 555.7

Source : Semi-synthetic

Appearance : White solid

Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

Application Notes

Milbemycin oxime is a semi-synthetic macrocyclic lactone prepared by the oxidation and oximation of a mixture of two natural products, milbemycin A3 and A4 (in ~30:70 ratio). Milbemycin oxime is used therapeutically for the prevention of intestinal parasites in dogs. Like the other milbemycin/avermectins, it was developed for intestinal parasite control in animals and acts by opening glutamate sensitive chloride channels in neurons of invertebrates leading to paralysis by hyperpolarisation of these cells and signal transfer blocking.

References

- 1. Synthesis of 5-keto-5-oxime derivatives of milbemycins and their activities against microfilariae. Tsukamoto Y. et al., Agric. Biol. Chem. 1991, 55, 2615.
- 2. Effects of milbemycin on adult Toxocara canis in dogs with experimentally induced infection. Bowman D. D. et al., Am J Vet Res 1988; 49: 1986.

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