

Product Name:	Milbemycin A3 oxime
Product Number:	M058
CAS Number:	114177-14-9
Molecular Formula:	$C_{31}H_{43}NO_7$
Molecular Weight:	541.7
Appearance:	White solid
Storage Conditions:	-20°C
Description:	<p>Milbemycin A3 oxime is a semi-synthetic macrocyclic lactone prepared by the oxidation and oximation of milbemycin A3. Milbemycin A3 oxime is the minor component (~30%) in the commercial product milbemycin oxime, marketed for endo- and exo-parasite infections.</p> <p>Milbemycin A3 oxime is soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</p>
Mechanism of Action:	Like the other milbemycin/ivermectins, milbemycin A3 oxime acts by opening glutamate sensitive chloride channels in neurons of invertebrates leading to paralysis by hyperpolarisation of these cells and signal transfer blocking.
References:	<p>Synthesis of 5-keto-5-oxime derivatives of milbemycins and their activities against microfilariae. Tsukamoto Y. et al. Agric. Biol. Chem. 1991, 55, 2615.</p> <p>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.</p>