

PRODUCT DATA SHEET

Code No.: BIA-L1783

Pack sizes: 0.5 mg, 5 mg

Synonyms :

Lepimectin A4

Specifications

CAS # : 171249-05-1

Molecular Formula : C₄₁H₅₃NO₁₀

Molecular Weight : 719.9

Source : Semi-synthetic

Appearance : Off-white solid

Purity : >95% by HPLC

Long Term Storage : -20°C

Solubility : Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Lepimectin A4 is a the major analogue of a complex of semi-synthetic milbemycins synthesised from 15-hydroxy-5-ketomilbemycin A3/A4 by coupling to methoxyiminophenylacetic acid and then reducing with sodium borohydride. Commercially, lepimectin is a mixture of lepimectin A3 and A4, generically known as lepimectin, with insecticidal, acaricidal and nematocidal properties. Ananlytical methods for the quantitation of the lepimectins have been published but there is a lack of data on the properties and biological potency of the individual analogues. Like other milbemycins, lepimectin acts by opening glutamate sensitive chloride channels. Lepimectin is marketed in Japan and Korea for use on fruit, vegetable and ornamental plants.

References

- 1. 13-substituted milbemycin derivatives, their preparation and their use. Takeshiba H. et al., US 5614470 1997.
- 2. Residue level and dissipation pattern of lepimectin in shallots using high-performance liquid chromatography coupled with photodiode array detection. Kim S-W. et al., Biomed. Chromatogr. 2016, 30, 1835.
- 3. Development and validation of an analytical method for the determination of lepimectin residues by HPLC-PDA. Jung-Ah Do J-A. et al., Analyt. Sci. Technol. 2013, 26, 142.
- 4. Toxic effect of some pesticides on adults and larvae of Aphidoletes aphidimyza (Rondani). Orita H. & Kashio T., Kyushu Byogaichu Kenkyukaiho 2005, 51, 83.

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