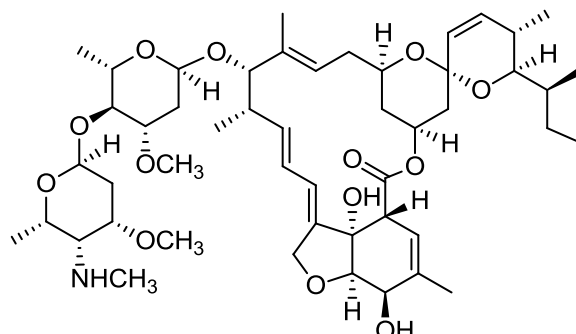


## Emamectin B1a

Code No.: **BIA-E1545**

Pack sizes: **1 mg, 5 mg**



Synonyms : L 656748

### Specifications

CAS #	: 121124-29-6
Molecular Formula	: C <sub>49</sub> H <sub>75</sub> NO <sub>13</sub>
Molecular Weight	: 886.1
Source	: <b>Semi-synthetic</b>
Appearance	: <b>White solid</b>
Purity	: <b>&gt;99% by HPLC</b>
Long Term Storage	: <b>-20°C</b>
Solubility	: <b>Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.</b>

### Application Notes

Emamectin B1a is a semi-synthetic 4"-epimethylamino analogue of avermectin B1a prepared by oxidation of the 4"-hydroxy moiety and reductive amination. The introduction of the methylamino group greatly enhances the insecticidal potency of the avermectin class. Emamectin B1a, as a benzoate salt, is the major component (>90%) of the commercial insecticide/acaricide, emamectin. Members of the avermectin/milbemycin class exert their insecticidal/anthelmintic effects by binding to glutamate-gated chloride channels expressed on nematode neurones and pharyngeal muscle cells.

### References

1. Discovery of novel avermectins with unprecedented insecticidal activity. Mrozik H. et al. *Experientia* 1989, 45, 315.
2. Synthesis of 4"-*epi*-amino-4"-deoxyavermectins B1. Cvetovich R.J. et al. *J. Org. Chem.* 1994, 59, 7704.

Updated: 2 December 2014