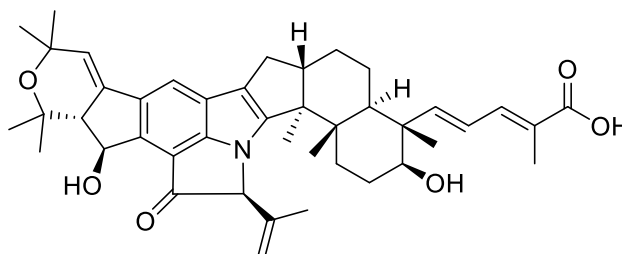


## Nodulisporic acid A

Code No.: **BIA-N2976**

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



Synonyms :

### Specifications

CAS #	: 163120-03-4
Molecular Formula	: C <sub>43</sub> H <sub>53</sub> NO <sub>6</sub>
Molecular Weight	: 679.9
Source	: <i>Nodulisporium</i> sp.
Appearance	: Yellow solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

### Application Notes

Nodulisporic acid is an indole terpene produced by *Nodulisporium* sp. first reported by researchers at Merck in 1997. Nodulisporic acid A is a more potent insecticide than paraherquamide, exhibiting an LC<sub>50</sub> of 0.5 ppm against *A. aegypti* and 0.3 ppm against *L. sericata*. Like ivermectin, nodulisporic acid A targets glutamate-gated chloride channels of the filarial nematode, *Brugia malayi*. Structure-activity relationship studies indicate that modifications to the left-hand side of the molecule result in loss of activity against fleas, whereas modifications to the C8 chain resulted in similar or superior insecticidal activity.

### References

1. Nodulisporic acid A, a novel and potent insecticide from a *Nodulisporium* Sp. Isolation, structure determination, and chemical transformations. Ondeyka J.G. et al. J Am Chem Soc. 1997, 119, 8809.
2. Nodulisporic acid produces direct activation and positive allosteric modulation of AVR-14B, a glutamate-gated chloride channel from adult *Brugia malayi*. Choudhary S. et al. Proc Nat Acad Sci. 2022, 119.
3. Comparison of nodulisporic acid analogs in a *Lucilia sericata* in vitro assay and a *Ctenocephalides felis* membrane feeding system. Felcetto T. et al. J Parasitol. 2002, 88, 223.