

Product Data Sheet

Product Name: (±)-Indoxacarb

Cat. No.: GC45985

Chemical Properties

Cas. No. 144171-61-9

SMILES O=C(N(C1=CC=C(OC(F)(F)F)C=C1)C(OC)=O)N2N=C3C(CC4=C3C=CC(Cl)=C4)(C(OC)=O)OC2

Formula C₂₂H₁₇ClF₃N₃O₇

M.Wt 527.8

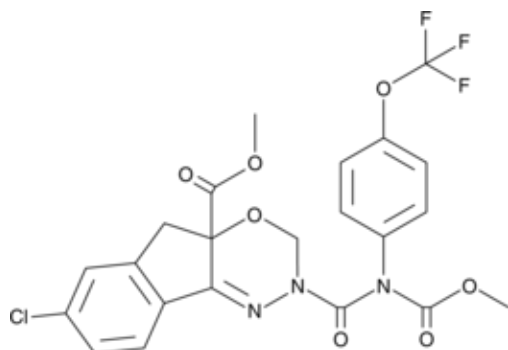
Solubility Ethanol: soluble*

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

(±)-Indoxacarb is a broad-spectrum oxadiazine insecticide.¹ It is metabolized in vivo to its active N-decarbomethoxylated metabolite DCJW. Topical administration of (±)-indoxacarb is lethal to *S. frugiperda*, *H. virescens*, *L. lineolaris*, *N. cincticeps*, *N. lugens*, *L. decemlineata*, *A. grandis*, and *M. domestica* (LD₅₀s = 0.03, 0.44, 1.6, 0.72, >7.8, 2.81, 6.45, and 15 ng/mg, respectively). It suppresses voltage-gated sodium channel currents in rat dorsal root ganglion neurons in a concentration-dependent manner.² Formulations containing (±)-indoxacarb have been used to control various insect pests in tea farming.³

[1. Wing, K.D., Sacher, M., Kagaya, Y., et al. Bioactivation and mode of action of the oxadiazine

Caution: Product has not been fully validated for medical applications. For research use only.

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indoxacarb in insects. Crop Prot. 19(8-10), 537-545 (2000).|2. Nagata, K., Ikeda, T., Honda, H., et al. Suppression of voltage-gated sodium currents by the dihydropyrazole insecticide, DPX-JW062 in rat dorsal root ganglion neurons. J. Pesticide Sci. 23(1), 62-64 (1998).|3. Zhang, X., Luo, F., Lou, Z., et al. Simultaneous and enantioselective determination of cis-epoxiconazole and indoxacarb residues in various teas, tea infusion and soil samples by chiral high performance liquid chromatography coupled with tandem quadrupole-time-of-flight mass spectrometry. J. Chromatogr. A 1359, 212-223 (2014).

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