

Product Data Sheet

Product Name: Azadirachtin

Cat. No.: GC46901

Chemical Properties

Cas. No. 11141-17-6

SMILES O=C(OC)[C@@]1(O)OC[C@]23[C@@H](OC(/C(C)=C/C)=O)C[C@@H](OC(C)=O)[C@]4(C(OC)=O)[C@]2([H])[C@](OC4)([H])[C@@H](O)[C@@](C)([C@]56[C@@](C)(O6)[C@]7([H])[C@](C=CO8)(O)[C@]8([H])O[C@@]5([H])C7)[C@@]31[H]

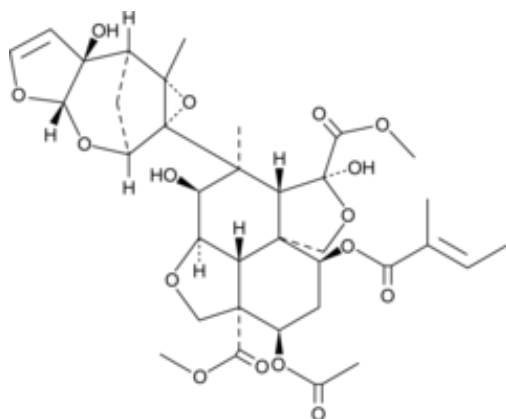
Formula C₃₅H₄₄O₁₆ M.Wt 720.7

Solubility DMSO : ≥ 100 mg/mL (138.75 mM) 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

Azadirachtin is a naturally-occurring insecticide originally isolated from the seeds of *A. indica*.¹ It inhibits feeding behavior, molting, and/or ovarian development in a species-dependent manner in insects.² Azadirachtin inhibits feeding on *G. barbadense* leaves and cotyledon disks by third instar *H. zea* larvae with protection concentrations (PC₉₅s) of 6.2 and 6.8 µg/disk, respectively.³ It inhibits ecdysis and growth of *H. zea*, *H. virescens*, *S. frugiperda*, and *P. gossypiella* with ecdysis inhibition

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

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values (Elg5s) ranging from 1 to 10 ppm and ED₅₀ values ranging from 0.4 to 0.7 ppm. Azadirachtin inhibits the growth of freshly molted fourth instar *E. varivestis* larva (LC₅₀ = 1.66 ppm).² It is lethal to *A. stephensi* first, second, third, and fourth instar larva, pupa, and adults at a concentration of 0.1 ppm.⁴

1.Butterworth, J.H., and Morgan, E.D.Isolation of a substance that suppresses feeding in locustsChem. Commun. (Lond.)123-24(1968) 2.Rembold, H.Azadirachtins. Their structure and mode of actionInsecticides of Plant Origin150-163(1989) 3.Kubo, I., and Kocke, J.A.Azadirachtin, insect ecdysis inhibitorAgr. Biol. Chem.46(7)1951-1953(1982) 4.Nathan, S.S., Kalaivani, K., and Murugan, K.Effects of neem limonoids on the malaria vector *Anopheles stephensi* Liston (Diptera: Culicidae)Acta. Trop.96(1)47-55(2005)

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