

Product Data Sheet

Product Name: Nalanthalide

Cat. No.: GC47741

Chemical Properties

Cas. No. 145603-76-5

SMILES C=C1CC[C@]([C@@](CC/C=C(C)/C)(C)[C@@H](OC(C)=O)CC2)([H])[C@@]2(C)[C@@H]1CC3=C(OC)OC(C)=C(C)C3=O

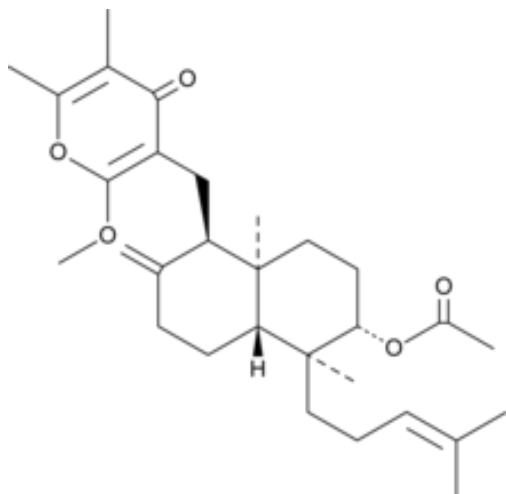
Formula C₃₀H₄₄O₅ M.Wt 484.7

Solubility Dichloromethane: soluble, DMSO: Storage Store at -20°C
soluble, Ethanol: soluble, Methanol: soluble

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

Nalanthalide is a diterpenoid pyrone fungal metabolite that has been found in *Nalanthamala* and has potassium channel inhibitory and antiviral activities.¹ It inhibits binding of the potassium channel inhibitor charybdotoxin to Jurkat cell membranes (IC₅₀ = 3 μM) and inhibits rubidium efflux from CHO

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

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cells expressing the voltage-gated potassium (K_v) channel $K_v1.3$ ($IC_{50} = 3.9 \mu M$). Nalanthalide depolarizes T cells *in vitro* with an EC_{50} value of 500 nM. It also inhibits HIV-1 integrase activity with IC_{50} values of 10 and 25 μM in coupled and strand transfer assays, respectively. ²

1.Goetz, M.A., Zink, D.L., Dezeny, G., et al.Diterpenoid pyrones, novel blockers of the voltage-gated potassium channel $K_v1.3$ from fungal fermentationsTetrahedron Lett.42(7)1255-1257(2001) 2.Singh, S.B., Jayasuriya, H., Dewey, R., et al.Isolation, structure, and HIV-1-integrase inhibitory activity of structurally diverse fungal metabolitesJ. Ind. Microbiol. Biotechnol.30(12)721-731(2003)

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