

Deoxycalyciphylline B Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Deoxycalyciphylline B

Catalog No.: CFN97061

Cas No.: 619326-74-8

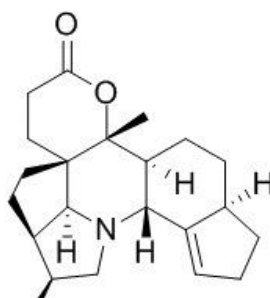
Purity: > 95%

M.F: C₂₂H₃₁NO₂

M.W: 341.5

Physical Description: Powder

Synonyms:



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Agricultural research;
6. Others.

[Source]

The herbs of *Daphniphyllum calycinum*.

[Biological Activity or Inhibitors]

Deoxycalyciphylline B and Methyl homosecodaphniphyllate show different inhibitory effects on the phenoloxidase (PO) of *Spodoptera exigua* (Hbner) and the inhibitor concentrations leading to 50% (IC₅₀) activity lost are estimated to be 2.439 mmol·L⁻¹ for deoxycalyciphylline B and 0.879 mmol·L⁻¹ for methyl homosecodaphniphyllate, respectively; they also are reversible competitive inhibitors and the K_i values are determined to be 2.051 mmol·L⁻¹ and 1.269 mmol·L⁻¹, respectively; suggests that they or their analogues can be used as the templates to guide the molecular design of enzyme inhibitors, these are important ways looking for new pest control agents.^[1]

Deoxycalyciphylline B exhibits hepatic toxicity, it is the main toxic constituent in *Daphniphyllum calycinum*.^[2]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[2]

HPLC-ESI:

Mobile phase: Methanol- 1% Formic acid in water=20:80 ;

Flow rate: 0.2 ml/min;

Column temperature: 30 °C;

Gas temperature : 350 °C;

Flow rate of gas : 9.0 L/min;

Carrier gas: N₂;

Pressure of nebulizer: 30psi;

Fragmentor: 135V.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Liu W, Xiao T, Du L, *et al. Scientia Agricultura Sinica*, 2009, 42(10):3720-5.

[2] Zhang X, Zhang J, Tan Y, *et al. Molecules*, 2012, 17(8):9641-51.

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