Natural Products

ChemFaces

Dendrobine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Dendrobine

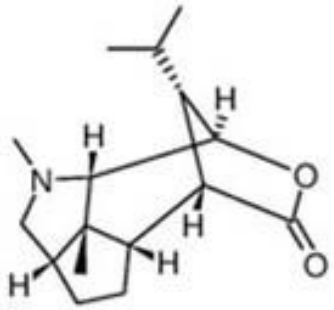
Catalog No.: CFN99133

Cas No.: 2115-91-5

Purity: > 98%

M.F: $C_{16}H_{25}NO_2$

M.W: 263.38



Physical Description: Cryst.

Synonyms:(2aS,4aS,5R,6S,7R,7aS,7bR)-decahydro-1,7b-dimethyl-6-(1-methylethyl)-7,5-(Epoxymethano)-1H-cyclopent[cd]indol-9-one; 12-Oxodendrobane.

[Intended Use]

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

[Source]

The herb of *Dendrobium nobile Lindl.*

[Biological Activity or Inhibitors]

Dendrobine, isolated from Dendrobium nobile, an antagonist of β-alanine, taurine and of presynaptic inhibition in the frog spinal cord.[1]

Dendrobine has antitumor activity, it can inhibit the growth of A549 cells through inducing apoptosis, which is partially dependent on mitochondrial-mediated pathway; dendrobine treatment decreased mitochondrial membrane potential (MMP), improved the expression of Bax and inhibited the expression of Bcl-2, therefore it was supposed that dendrobine treatment decreased the MMP through regulating the expression of Bcl-2 and Bax; dendrobine releases cytochrome c and promotes caspase 9 activation indicating that dendrobine induces apoptosis is partially caspase-dependent.[2]

[Solvent]

Chloroform, Dichloromethane, DMSO, Acetone.

[HPLC Method][3]

Mobile phase: Methanol - 0.1% Triethylamine, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 240 nm.

[Storage]

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

[References]

[1] Yannakopoulou K. *Brit. J. Pharmacol., 1983, 78(4):709–15.*

[2] Song T . *The HKU Scholars Hub, 2016.*

[3] Shen G. *Journal of Anhui Agricultural Sciences, 2009, 37(31):15248-9.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com