**Natural Products** 



# **Cyclovirobuxine Datasheet**

5<sup>th</sup> Edition (Revised in January, 2017)

#### [ Product Information ]

Name: Cyclovirobuxine

Catalog No.: CFN99176

Cas No.: 860-79-7

**Purity:** >=99%

M.F: C<sub>26</sub>H<sub>46</sub>N<sub>2</sub>O

M.W: 402.66



Physical Description: White cryst.

Synonyms:Cyclovirobuxin D;(3beta,5alpha,9xi,10xi,14xi,16alpha,20S)-4,4,14-trimethyl-

3,20-bis(methylamino)-9,19-cyclopregnan-16-ol.

## [ Intended Use ]

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

# [ <u>Source</u> ]

The barks of Buxus sinica var. parvifolia M. Cheng.

## [Biological Activity or Inhibitors]

Cyclovirobuxine D(CVB-D) has been widely used for treatment of cardiac insufficiency and arrhythmias in China, the antiarrhythmic and proarrhythmic potential of this drug might be concerned with prolongation of action potential duration and QT interval.<sup>[1]</sup> Cyclovirobuxine D is beneficial for heart failure induced by myocardial infarction and supports the potential for cyclovirobuxine D as a new therapy for heart failure.<sup>[2]</sup> Cyclovirobuxine D can induce autophagy in the MCF-7 human breast cancer cell line, CVB-D-induced autophagy and decrease in cell viability could be blocked by 3-methyladenine, a well-established autophagy inhibitor, moreover, CVB-D attenuated the phosphorylation of Akt and mTOR, two pivotal suppressors in autophagy pathways;these findings may support the potential utility of autophagy inducers in cancer treatment.<sup>[3]</sup>

#### [Solvent]

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

## [ HPLC Method ]<sup>[5]</sup>

Mobile phase: Methanol -H2O=83:17 ; Flow rate: 1.0 ml/min; Column temperature: 30 °C; The wave length of determination: 240 nm.

# [Storage]

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

#### [References]

[1] Zhao J, Wang Q, Xu J, et al. Eur. J. Pharmacol., 2011 Jun 25;660(2-3):259-67.

- [2] Yu B, Fang T H, Lü G H, et al. Fitoterapia, 2011, 82(6):868-77.
- [3] Vaidya H, Rajani M, Sudarsanam V, et al.J. Pharmacol. Sci., 2014;125(1):74-82.

[4] Shen J L, Guo J B, Gao Z J, et al. Chinese Journal of New Drugs, 2012, 21(3):240-5.
[5] Huang Q A, Huang H Y, Lu J, et al. Chinese Journal of Pharmaceutical Analysis,2007, 27(02):264-6.

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