

# **Cinobufotalin Datasheet**

4<sup>th</sup> Edition (Revised in July, 2016)

#### [ Product Information ]

Name: Cinobufotalin

Catalog No.: CFN90137

Cas No.: 1108-68-5

**Purity: >=98%** 

M.F: C<sub>26</sub>H<sub>34</sub>O<sub>7</sub>

M.W: 458.54

Physical Description: Powder

**Synonyms:**5-beta-Bufa-20,22-dienolide,14,15-beta-epoxy-3-beta,5,16-beta-trihydroxy-,1 6-acetate;(3beta,5beta,15beta,16beta)-16-(acetyloxy)-3,5-dihydroxy-14,15-epoxybufa-20, 22-dienolide.

## [ Intended Use ]

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

#### [Source]

The glandular body of Bufo bufo gargarizans Cantor.

[ Biological Activity or Inhibitors]

Cinobufotalin (CB), one of the bufadienolides prepared from toad venom, it induces

caspase dependent cell death in U937 cells, and that Fas plays a role in CB-induced

apoptosis, it has potential as a future chemotherapeutic agent. [1]

Cinobufotalin is a main cardiac toxin in toad.[2]

Cinobufotalin can inhibit A549 lung cancer cell growth in vivo, mainly by inducing

Cyp-D-dependent non-apoptotic death, suggests that cinobufotalin may be further

investigated as a novel anti-lung cancer agent. [3]

Cinobufotalin can promote the dendritic cells(DCs) derived from peripheral blood of

patients with chronic hepatitis B to mature and effectively enhance its(the DCs')

capabilities, therefore the treatment of cinobufotalin may potentiate the antiviral immunity

of the patients with chronic hepatitis B(CHB).[4]

[Solvent]

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

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

Mobile phase: Acetonitrile-H2O=48:52;

Flow rate: 0.8 ml/min;

Column temperature: 30 °C;

The wave length of determination: 296 nm.

[Storage]

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

[References]

[1] Emam H, Zhao Q L, Furusawa Y, et al. Chem. Biol. Int., 2012, 199(3):154-60.

[2] Dasgupta A, Emerson L. Life Sci., 1998, 63(9):781-8.

[3] Kai S, Lu J H, Hui P P, et al. Biochem. Bioph. Res.Co., 2014, 452(3):768-74.

[4] Wei X, Wang X, Tang W. Pharmacology & Clinics of Chinese Materia Medica, 2007, 23(4):54-6.

[5] Wang Y G, Gu S L. Chinese Journal of Pharmaceutical Analysis, 2009,29(7):1172-4.

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