**Natural Products** 



# **Bufalin Datasheet**

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

#### [ Product Information ]

Name: Bufalin

Catalog No.: CFN99947

Cas No.: 465-21-4

**Purity:** >=98%

M.F: C<sub>24</sub>H<sub>34</sub>O<sub>4</sub>

M.W: 386.52

Physical Description: White powder

Synonyms:22-dienolide,3,14-dihydroxy-,(3-beta,5-beta)-bufa-2;22-dienolide,3-beta,14-di

hydroxy-5-beta-bufa-2.

#### [ 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]

Bufalin, an active principle of Chinese medicine, *chan'su*, it can induce typical apoptosis in human leukemia U937 cells, a pathway with the persistent activation of MAP kinase in U937 cells in response to bufalin is at least one of the signal transduction pathways involved in the induction of apoptosis.<sup>[1]</sup>

Bufalin and cinobufagin may inhibit the proliferation of prostate cancer cell lines associated with sustained elevation of the  $[Ca^{2+}]_i$  and that of apoptosis.<sup>[2]</sup>

Bufalin is a potent small-molecule inhibitor of the steroid receptor coactivators steroid receptor coactivator (SRC)-3 and SRC-1, it as a potentially broad-spectrum small-molecule inhibitor for cancer.<sup>[3]</sup>

#### [ Solvent ]

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

#### [ HPLC Method ]<sup>[4]</sup>

Mobile phase: Methanol -H2O=70:30 ; Flow rate: 1.0 ml/min; Column temperature: 30 °C; The wave length of determination: 298 nm.

### [ Storage ]

 $2-8^{\circ}$ C, Protected from air and light, refrigerate or freeze.

#### [References]

[1] Watabe M, Masuda Y, Nakajo S, et al. J. Biol. Chem., 1996, 271(24):14067-72.

- [2] Yeh J Y, Huang W J, Kan S F, et al. Prostate, 2003, 54(2):112-24.
- [3] Wang Y, Lonard D M, Yu Y, et al. Cancer Res., 2014, 74(5):1506-17.
- [4] Li Z, Xue B, Qi G, et al. Chinese Journal of Pharmaceutical Analysis, 2004(5):523-5.

## [ Contact ]

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