

Telocinobufagin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Telocinobufagin

Catalog No.: CFN90213

Cas No.: 472-26-4

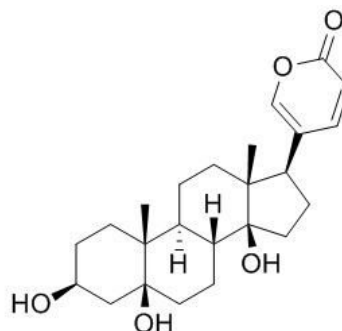
Purity: > 98%

M.F: C₂₄H₃₄O₅

M.W: 402.52

Physical Description: Powder

Synonyms: 5-[(3S,5S,10R,13R,14S,17R)-3,5,14-trihydroxy-10,13-dimethyl-2,3,4,6,7,8,9,11,12,15,16,17-dodecahydro-1H-cyclopenta[a]phenanthren-17-yl]-2-pyranone.



[Intended Use]

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

[Source]

The bodys of *Venenum bufonis*.

[Biological Activity or Inhibitors]

Telocinobufagin (TCB), a bufadienolide extracted from *Bufo paracnemis* parotoid glands, shows a reversible local anesthetic action, similar to BUPI, however, without cardiac toxicity in vitro. ^[1]

Telocinobufagin is a novel endogenous digitalis, exhibits elevated plasma levels in patients with terminal renal failure. ^[2]

Telocinobufagin and marinobufagin have antimicrobial activity, the minimum inhibitory concentrations of telocinobufagin and marinobufagin were, respectively, 64.0 and 16.0 microg/mL for *E. coli* and both 128 microg/mL for *S. aureus*; they also promote an increase of the contraction force in isolated frog ventricle strips. ^[3]

Telocinobufagin has potential immune system regulatory effects, suggests that it could be developed as a novel immunotherapeutic agent to treat and other immune-mediated diseases, and it may become a new immunomodulatory agent in many regions. ^[4]

Telocinobufagin can enhance the Th1 immune response and protect against *Salmonella typhimurium* infection. ^[5]

Telocinobufagin can induce colon cancer cell apoptosis by oxidative stress and apoptosis pathway. ^[6]

[Solvent]

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

[HPLC Method] ^[7]

Mobile phase: Acetonitrile-0.3% Acetic acid , gradient elution;

Flow rate: 0.8 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 296 nm.

[Storage]

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

[References]

- [1] Patrocínio B A, Cláudio M. *Universidade Federal do Ceará*, 2004.5.26.
- [2] Komiyama Y, Dong X N, Masaki H, *et al. Clin. Biochem.*, 2005, 38(1):36-45.
- [3] Cunha Filho G A, Schwartz C A, Resck I S, *et al. Toxicon.*, 2005, 45(6):777-82.
- [4] Cao Y, Song Y, An N, *et al. Fund Clin. Pharmacol.*, 2009, 23(4):457-64.
- [5] Wu S C, Fu B D, Shen H Q, *et al. Int. Immunopharmacol.*, 2015, 25(2):353-62.
- [6] Liang S T, Li Y, Li X W, *et al. Nan Fang Yi Ke Da Xue Xue Bao.* 2016, 36(7):921-6.
- [7] Ma X C, Zhang B J, Xin X L, *et al. Nat. Prod. Co.*, 2009, 4(4):179-84.

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