**Natural Products** 



# **Koumine Datasheet**

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

#### [ Product Information ]

Name: Koumine

Catalog No.: CFN99425

Cas No.: 1358-76-5

**Purity:** >=98%

M.F: C<sub>20</sub>H<sub>22</sub>N<sub>2</sub>O

M.W: 306.4

Physical Description: Powder

**Synonyms:**7,20(2H,19H)-Cyclovobasan,1,2,18,19-tetradehydro-3,17-epoxy-,(3R,7alpha, 20alpha)-;(4aR,6R,11cS)-11c-ethenyl-2-methyl-1,2,3,4,4a,5,6,11c-octahydro-6,4-(epoxym ethano)-3,11b-methanopyrido[4,3-c]carbazole.

### [ Intended Use ]

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

# [Source]

The roots of Gelsemium elegans.



#### [Biological Activity or Inhibitors]

Koumine can induce apoptosis of LoVo cells in a time-dependent manner and inhibit the DNA synthesis in LoVo cells, thereby blocking the cell cycle from G1 to S phase.<sup>[1]</sup> Koumine has a significant analgesic effect in rodent behavioral models of inflammatory and neuropathic pain, and that the reduction in neuropathic pain may be associated with the upregulation of allopregnanolone in the spinal cord.<sup>[2]</sup>

Koumine has therapeutic effect against psoriasis, which is related to the inhibition of epidermal cell proliferation, promoting the formation of granular cells and decreasing the serum level of IL-2. <sup>[3]</sup>

Koumine can significantly reduce the damage to axon and myelin sheath of the sciatic nerve and increase sensory nerve conduction velocity, without affecting body weight and blood glucose, these findings encourage the use of koumine in the treatment of diabetic neuropathy.<sup>[4]</sup>

Koumine may produce anxiolytic-effect by increasing the levels of pregnenolone and allopregnenolone in hippocampus.<sup>[5]</sup>

### [ Solvent ]

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

### [ HPLC Method ]<sup>[6]</sup>

Mobile phase:Methanol -H2O-Dibutylamine=58:42:0.01; Flow rate: 1.0 ml/min; Column temperature: 30 ℃; The wave length of determination: 263nm.

# [ Storage ]

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

# [ <u>References</u> ]

[1] Chi D B, Lei L S, Jin H, et al. Di Yi Jun Yi Da Xue Xue Bao, 2003, 23(9):911-3.

[2] Xu Y, Qiu H Q, Liu H, et al. Pharmacol.Biochem. Behav., 2012, 101(3):504-14.

[3] Zhang L L, Huang C Q, Zhang Z Y, *et al. Di Yi Jun Yi Da Xue Xue Bao,2005,25(5):* 547-9.

[4] Ling Q, Liu M, Wu M X, et al. Biol. Pharm.Bull.,2014, 37(5):858-64.

[5] Huang H H, Chen C J, Liu M, et al. Strait Pharmaceutical Journal, 2016, 28(2):21-4.

[6] Qiu H Q, Cheng Y, Liu M B, et al. Zhong Cao Yao, 2016,47(13):2324-7.

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