

Goniothalamine Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Goniothalamine

Catalog No.: CFN97803

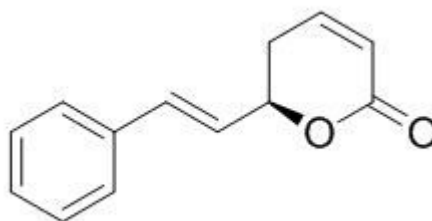
Cas No.: 17303-67-2

Purity: > 95%

M.F: C₁₃H₁₂O₂

M.W: 200.23

Physical Description: Powder



Synonyms: [R,(+)]-5,6-Dihydro-6α-[(E)-2-phenylethenyl]-2H-pyran-2-one; (6R)-(+)-5,6-Dihydro-6-styryl-2-pyrone; (6R)-(+)-Goniothalamine.

[Intended Use]

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

[Source]

The herbs of *Goniothalamus griffithii*.

[Biological Activity or Inhibitors]

Goniothalamine shows potential cytotoxicity against hepatoblastoma HepG2 cells, it selectively kills liver cancer cell through suppression of proliferation and induction of apoptosis.^[1]

Goniothalamine has DNA-damaging effect against lung cancer cells, which leads to growth inhibition as well as a depression in migration ability, therefore, goniothalamine has potential as a chemotherapeutic agent against lung cancer.^[2]

Goniothalamine induces apoptosis in vascular smooth muscle cells.^[3]

Goniothalamine shows potent cytotoxicity with LC₅₀ values (5.03 microg/mL) comparable with the reference standard agent, gallic acid, it also shows weak antibacterial and significant antifungal activity against a wide range of gram positive and gram negative bacteria and fungi, the antibacterial (minimum inhibitory concentration) effect against *Bacillus cereus* and *Shigella shiga* is 64 microg/mL.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Methanol -H₂O, gradient elution;

Flow rate: 3.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 208 nm.

[Storage]

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

[References]

[1] Alqubaisi M, Rozita R, Yeap S K, *et al. Molecules*, 2011, 16(4):2944-59.

[2] Chiu C C, Liu P L, Huang K J, *et al. J. Agric. Food Chem.*, 2011 Apr 27; 59(8):4288-93.

[3] Chan K M, Rajab N F, Ishak M H, *et al. Chem. Biol. Interact.*,2006 Feb 1;159(2):129-40.

[4] Mosaddik M A, Haque M E. *Phytother. Res.*,2003 Dec;17(10):1155-7.

[5] Liou J R, Wu T Y, Thang T D, *et al. J. Nat. Prod.*,2014,77(12):2626-32.

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