

Cleomiscosin A Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Cleomiscosin A

Catalog No.: CFN97252

Cas No.: 76948-72-6

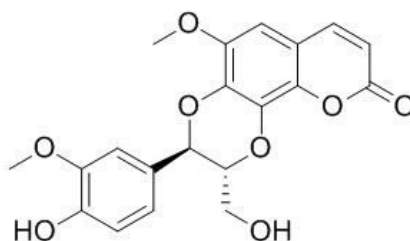
Purity: >=98%

M.F: C₂₀H₁₈O₈

M.W: 386.4

Physical Description: Powder

Synonyms: (2R,3R)-rel-2,3-Dihydro-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-5-methoxy-9H-pyrano[2,3-f]-1,4-benzodioxin-9-one.



[Intended Use]

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

[Source]

The herbs of *Buxus sinica*.

[Biological Activity or Inhibitors]

Cleomiscosin-A and brusatol from *Brucea javanica* are antitumor agents, have antileukemic principles.^[1]

Cleomiscosin A and cleomiscosin C have antioxidant activity, they protect against the oxidative modification of apoB-100 induced by either Cu²⁺ or HOCl (1, IC₅₀s of 13.4 and 8.1 microM, respectively; 2, IC₅₀s of 23.6 and 3.9 microM, respectively), suggests that they could be beneficial in preventing LDL oxidation in atherosclerotic lesions.^[2]

Cleomiscosin A methyl ether derivatives have anti-inflammatory activity. ^[3]

Cleomiscosin A shows inhibitory activity to TNF- α secretion of the mouse peritoneal macrophages.^[4]

The mixture of three compounds (cleomiscosin A, B and C) is showing the significant protective effects against CCl₄-induced hepatotoxicity in small animals and also coumarinolignoids are well tolerated by small animals in acute oral study.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: 33% Acetonitrile in methanol - 0.5% Acetic acid H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 326 nm.

[Storage]

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

[References]

[1] Lee K H, Hayashi N, Okano M, *et al. J.Nat. Prod.*, 1984, 47(3):550-1.

[2] Jin W Y, Thuong P T, Su N D, *et al. Arch.Pharm. Res.*, 2007, 30(3):275-81.

- [3] Sharma S, Chattopadhyay S K, Yadav D K, *et al. Eur.J.Pharmaceut. Sci.*, 2012, 47(5): 952-64.
- [4] Ma M, Shang X Y, Wang S J, *et al. China Journal of Chinese Materia Medica*, 2007, 32(12):e18-e21.
- [5] Yadav N P, Chanda D, Chattopadhyay S K, *et al. Indian J.Pharm.Sci.*, 2010, 72(6): 759-65.
- [6] Kaur R, Kumar S, Chatterjee A, *et al. Biomed.Chromatogr. BMC*, 2010, 24(9):1000-5.

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