

Sanguinarine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Sanguinarine

Catalog No.: CFN99818

Cas No.: 2447-54-3

Purity: >=98%

M.F: C₂₀H₁₄NO₄

M.W: 332.33

Physical Description: Powder

Synonyms: BRN 3915507; Dimethylenedioxy benzphenanthridine; Pseudochelerythrine;

Sanguinarin;(1,3)-Benzodioxolo(5,6-c)-1,3-dioxolo(4,5-i)phenanthridinium,13-methyl-;

13-methyl[1,3]benzodioxolo[5,6-c][1,3]dioxolo[4,5-i]phenanthridin-13-ium.



[Intended Use]

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

[Source]

The herbs of *Chelidonium majus*.

[Biological Activity or Inhibitors]

Sanguinarine is a natural plant extract that has been supplemented in a number of gingival health products to suppress the growth of dental plaque, it can inhibit osteoclast formation and bone resorption via suppressing RANKL-induced activation of NF- κ B and ERK signaling pathways, suggests that sanguinarine has protective effects on teeth and alveolar bone health.^[1]

Berberine and sanguinarine intercalate DNA, inhibit DNA synthesis and reverse transcriptase; sanguinarine (but not berberine) affects membrane permeability and berberine protein biosynthesis; thus, these biochemical activities may mediate chemical defence against microorganisms, viruses and herbivores in the plants producing these alkaloids.^[2]

Sanguinarine ,a known anti-inflammatory agent, is a potent inhibitor of NF- κ B activation and it acts at a step prior to I κ B α phosphorylation. ^[3]

Sanguinarine possesses antimicrobial, anti-inflammatory, and antioxidant properties; it has the antiproliferative and apoptotic potential against human epidermoid carcinoma (A431) cells and normal human epidermal keratinocytes (NHEKs), suggests that sanguinarine could be developed as an anticancer drug.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Acetonitrile-1%Triethylamine=25:75(adjusted to pH 3 with phosphoric acid) ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 263 nm.

[Storage]

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

[References]

- [1] Li H, Zhai Z, Liu G, *et al. Biochem. Bioph. Res. Co.*, 2013, 430(3):951-6.
- [2] Schmeller T, Latz-Brüning B, Wink M. *Phytochemistry*, 1997, 44(2):257-66.
- [3] Chaturvedi M M, Kumar A, Darnay B G, *et al. J. Biol. Chem.*, 1997, 272(48):30129-34.
- [4] Ahmad N, Gupta S, Husain M M, *et al. Clin. Cancer Res.*, 2000, 6(4):1524-8.
- [5] Zuo J L. *Chinese Journal of Pharmaceutical Analysis*, 2008, 28(6):903-5.

[Contact]

Address:

S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com

Tel: +86-27-84237783

Fax: +86-27-84254680

Web: www.chemfaces.com

Tech Support: service@chemfaces.com