

Shikonine Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Shikonine

Catalog No.: CFN92622

Cas No.: 517-89-5

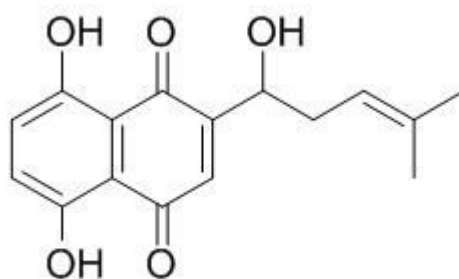
Purity: > 98%

M.F: C₁₆H₁₆O₅

M.W: 288.3

Physical Description: Powder

Synonyms: 5,8-Dihydroxy-2-(1-hydroxy-4-methylpent-3-en-1-yl)-1,4-naphthoquinone.



[Intended Use]

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

[Source]

The roots of *Lithosperma erythrorhizon* Sieb. et Zucc.

[Biological Activity or Inhibitors]

Shikonin and alkannin are the most potent and specific inhibitors to tumor-specific pyruvate kinase-M2 (PKM2) reported so far, as PKM2 universally expresses in cancer cells and dictates the last rate-limiting step of glycolysis vital for cancer cell proliferation and survival, enantiomeric shikonin and alkannin may have potential in future clinical application.^[1]

Shikonin, a naphthoquinone pigment from the root of *Lithospermum erythrorhizon*, it has antibacterial, antitumor, and anti-inflammatory effects, it provides neuroprotection by reducing the release of various proinflammatory molecules from activated microglia.^[2]

Shikonin can inhibit VEGF-induced angiogenesis and suppress tumor growth in lewis lung carcinoma-bearing mice. ^[3]

[Solvent]

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

[HPLC Method]^[4]

Mobile phase: Methanol- 0.025 M H₃PO₄=85 :15 ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 516 nm.

[Storage]

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

[References]

[1] Chen J, Xie J, Jiang Z, *et al. Oncogene*, 2011, 30(42):4297-306.

[2] Nam K N, Son M S, Park J H, *et al. Neuropharmacology*, 2008, 55(5):819-25.

[3] Lee H J, Lee H J, Magesh V, *et al. Yakugaku zasshi*, 2008, 128(11):1681-8.

[4]Wu Y. *Traditional Chinese Drug Research And Clinical Pharmacology*,2005, 16(1):66-8.

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