

Acetylshikonin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Acetylshikonin

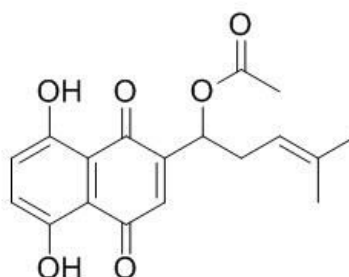
Catalog No.: CFN90308

Cas No.: 54984-93-9

Purity: >=98%

M.F: C₁₈H₁₈O₆

M.W: 330.33



Physical Description: Powder

Synonyms: 1,4-Naphthalenedione, 2-(1-(acetyloxy)-4-methyl-3-pentenyl)-5,8-dihydroxy-

[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, acetylshikonin, and isobutyroylshikonin inhibit vascular endothelial growth factor (VEGF)-induced angiogenesis and suppress tumor growth in Lewis lung carcinoma-bearing mice, they exhibit the antiangiogenic and antitumorigenic effects by suppressing proliferation and angiogenic factors. [1]

Acetylshikonin inhibits the generation of NADPH oxidase complex in the activation of respiratory burst of PMNs, but does not directly inhibit the activity of NADPH oxidase already generated. [2]

Acetylshikonin a novel AChE inhibitor, can inhibit apoptosis via upregulation of heme oxygenase-1 expression in SH-SY5Y cells, it has neuroprotective activities. [3]

Acetylshikonin, one naphthoquinone pigment from *Lithospermum erythrorhizon*, it suppresses adipocyte differentiation in a dose-dependent manner and significantly attenuated adipogenic transcription factor expression in 3T3-L1 cells, suggests that *Lithospermum erythrorhizon* prevents obesity by inhibiting adipogenesis through downregulation of genes involved in the adipogenesis pathway and may be a useful dietary supplement. [4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Acetonitril-Methanol-2% Acetic acid H₂O=60:20:20 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 525 nm.

[Storage]

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

[References]

- [1] Lee H J, Lee H J, Magesh V, *et al. Yakugaku Zasshi.*, 2008, 128(11):1681-8.
- [2] Kawakami N, Koyama Y, Tanaka J, *et al. Biol. Pharmaceut. Bull.*, 1996, 19(10):1266-70.
- [3] Wang Y, Pan W L, Liang W C, *et al. Evid.-based Compl. Alt. M.*, 2013, 2013(2013):937370-937370.
- [4] Gwon S Y, Ahn J Y, Chung C H, *et al. J.Agr. Food Chem.*, 2012, 60(36):9089-96.
- [5] Ozgen U, Ozturk M, Atila A, *et al. Planta Med.*, 2007, 73(9):883-883.

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