

Dimethylacrylshikonin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Dimethylacrylshikonin

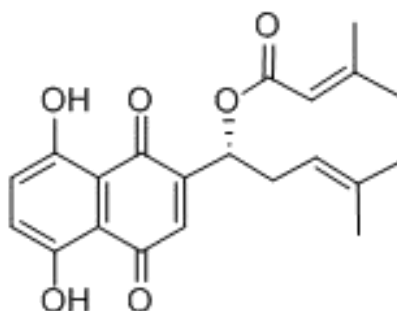
Catalog No.: CFN90164

Cas No.: 24502-79-2

Purity: >=98%

M.F: C₂₁H₂₂O₆

M.W: 370.39



Physical Description: Powder

Synonyms: (beta,beta-Dimethylacryl)shikonin; 1-(5,8-dihydroxy-1,4-dioxo-1,4-dihydronaphthalen-2-yl)-4-methylpent-3-en-1-yl 3-methylbut-2-enoate; b,b-dimethyl acrylshikonin.

[Intended Use]

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

[Source]

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

[Biological Activity or Inhibitors]

β,β -Dimethylacrylshikonin is one of the most abundant naphthoquinones in the root extracts of *Lithospermum erythrorhizon* Sieb. et Zucc. (Boraginaceae), it has significant antitumor effects on hepatocellular carcinoma both in vitro and in vivo. [1]

β,β -Dimethylacrylshikonin can inhibit growth of gastric cancer SGC-7901 cells by inducing ERK signaling pathway, and provides a clue for preclinical and clinical evaluation of β,β -dimethylacrylshikonin for gastric cancer therapy.[2]

Shikonin (SA) and its derivatives(acetylshikonin and β,β -Dimethylacrylshikonin) inhibit agonist-induced relaxation at lower concentrations and induce vasocontraction at higher concentrations; all the effects seen with SA are endothelium-dependent, however, through different mechanisms.[3]

[Solvent]

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

[HPLC Method]^[4]

Mobile phase: Methanol- 0.1% Triethylamine aqueous solution(adjusted with phosphoric acid,pH 3), gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 516 nm.

[Storage]

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

[References]

[1] Wu YY , Wan L H, Zheng X W, *et al. Phytother. Res.*, 2012, 26(5):764-71.

[2] Shen X J, Wang H B, Ma X Q, *et al. Plos One*, 2012, 7(7):e41773.

[3] Hu C M, Cheng Y W, Cheng H W, *et al. Planta Med.*, 2004, 70(1):23-8.

[4] Bi Y Y, Hu F D, Feng S, *et al.* *China Journal of Chinese Materia Medica*, 2010, 35(18): 2402-5.

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