

Beta,beta-Dimethylacrylalkannin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Beta,beta-Dimethylacrylalkannin

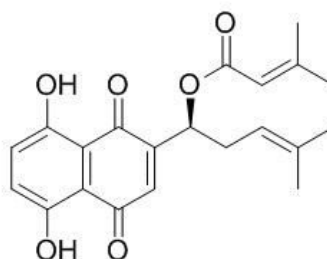
Catalog No.: CFN90626

Cas No.: 34539-65-6

Purity: > 98%

M.F: C₂₁H₂₂O₆

M.W: 370.4



Physical Description: Reddish brown powder

Synonyms: (1S)-1-(5,8-dihydroxy-1,4-dioxo-1,4-dihydronaphthalen-2-yl)-4-methylpent-3-en-1-yl-3-methylbut-2-enoate; 2-Butenoic-acid, -3-methyl-, (1S)-1-(1,4-dihydro-5,8-dihydroxy-1,4-dioxo-2-naphthalenyl)-4-methyl-3-penten-1-yl ester.

[Intended Use]

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

[Source]

The roots of *Lithospermum erythrorhizon*.

[Biological Activity or Inhibitors]

Beta,beta-Dimethylacrylalkannin has radical scavenging activity.^[1]

Beta,beta-Dimethylacrylalkannin can be potential therapeutics against tumor cell growth because of its unique DNA damaging abilities additional to enzyme inhibition similar to those of doxorubicin.^[2]

Beta,beta-Dimethylacrylalkannin shows remarkable cytotoxic activity against HT-29, MDA-MB-231 and PC-3 cell lines, comparable or stronger than the other compounds and positive control CPT-11 (CAMPTOSTAR®, irinotecan) with IC₅₀ values in between 0.1uM and 1uM; it has great potential as topo I inhibitors compared to other compounds and CPT-11, with 2-3uM inhibition value. ^[3]

Beta,beta-Dimethylacrylalkannin exhibits inhibitory activities on PTP1B with IC₅₀ values of 0.36±0.08 umol·L⁻¹, it may be a new type of leading compounds for the treatment of diabetes.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Methanol -H₂O- Formic acid=95:5:0.1;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 520 nm.

[Storage]

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

[References]

[1] Jie Li, Ruifa Jin. *Mol. Simulat.*, 2012, 38(12):980-6.

[2] Bogurcu N, Sevimli-Gur C, Ozmen B, *et al. Biochem. Biophys.Res.Comm.*, 2011, 409(4):738-44.

[3] Sevimli-Gür C, Korkmaz K S, Akgün İH , *et al. Planta Med.*, 2009, 75(9):963-7.

[4] Wang X,Tang Z S, Yang N, *et al. Chinese Pharmaceutical Journal*, 2016, 51(13):1120-3.

[5]Bozan B, Başer K H C, Kara S. *J. Chromatogr. A*, 1997, 782(1):133-6.

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