Natural Products

ChemFaces

Angelicin Datasheet

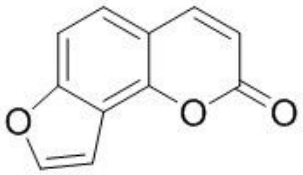
4th Edition (Revised in July, 2016)

[Product Information]

Name: Angelicin

Catalog No.: CFN98854

Cas No.: 523-50-2



Purity: > 98%

M.F: $C_{11}H_6O_3$

M.W: 186.2

Physical Description: Powder

Synonyms: 2-Furo[2,3-h][1]benzopyranone; Isopsoralen.

[Intended Use]

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

[Source]

The seeds of *Psoralea grandulosa.*

[Biological Activity or Inhibitors]

Angelicin is a furocoumarin found in Psoralea corylifolia L. fruit, can block the phosphorylation of IκBα, NFκBp65, p38 MAPK, and JNK in lipopolysaccharide-induced acute lung injury model, suggests that angelicin was potentially advantageous to prevent inflammatory diseases by inhibiting NF-κB and MAPK pathways, it might be a potential new agent for prevention of inflammatory reactions and diseases in the clinic.[1]

Angelicin, compared with cytosine arabinoside, mithramycin and cisplatin, is a powerful inducer of erythroid differentiation and -globin mRNA accumulation of human leukemia K562 cells, it is a potential therapeutic approach in hematological disorders, including -beta-thalassemia and sickle cell anemia.[2]

A novel angelicin derivative 6a was identified to inhibit influenza A (H1N1) virus induced Cytopathic effect in Madin-Darby canine kidney cell culture in low micromolar range, these compounds act as anti-influenza agents by inhibiting ribonucleoprotein (RNP) complex associated activity and have the potential to be developed further, which could form the basis for developing additional defense against influenza pandemics.[3]

Angelicin is structurally related to psoralens, a well-known chemical class of photosensitizers used for its antiproliferative activity in treatment of different skin disease, angelicin is an effective apoptosis-inducing natural compound of human SH-SY5Y neuroblastoma cells which suggests that this compound may have a role in future therapies for human neuroblastoma cancer.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Methanol : H2O=52:48;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 246 nm.

[Storage]

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

[References]

[1] Liu F, Sun G Q, Gao H Y, *et al. J. Surg. Res., 2013, 185(1):300-9.*

[2] Lampronti I, Bianchi N M, Fibach E*, et al. Eur. J. Haematol., 2003, 71(3):189-95.*

[3] Yeh J, Coumar M, Horng J, *et al. J. Med. Chem., 2010, 53(4):1519-33.*

[4] Rahman M A, Kim N H, Yang H, *et al. Mol. Cell Biochem., 2012, 369(1-2):95-104.*

[5] Yan R, Liu Z, Luo J. *Chinese Medicine Modern Distance Education of China, 2008,6(11):1329-30.*

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