

Acacetin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Acacetin

Catalog No.: CFN98744

Cas No.: 480-44-4

Purity: >=98%

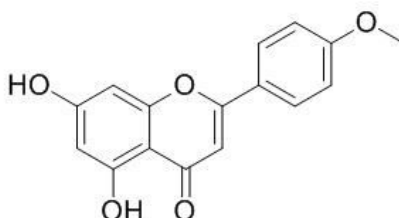
M.F: C₁₆H₁₂O₅

M.W: 284.26

Physical Description: Yellow powder

Synonyms: 5,7-Dihydroxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one;

5,7-Dihydroxy-2-(4-methoxyphenyl)-4H-chromen-4-one; Apigenin-4'-methyl Ether.



[Intended Use]

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

[Source]

The bark of *Acacia farnesiana*.

[Biological Activity or Inhibitors]

Acacetin, a flavonoid compound, has anti-peroxidative and anti-inflammatory effects, it can suppress LPS-induced up-expression of iNOS and COX-2 in murine macrophages and TPA-induced tumor promotion in mice, suggests that acacetin is a functionally novel agent capable of preventing inflammation-associated tumorigenesis. ^[1]

Acacetin-induced apoptosis of MCF-7 cells is mediated by caspase activation cascades, ROS generation, mitochondria-mediated cell death signaling and the SAPK/JNK1/2-c-Jun signaling pathway, activated by acacetin-induced ROS generation.^[2]

Acacetin inhibits cell growth and cell cycle progression, and induces apoptosis in human prostate cancer cells.^[3]

Acacetin is an atrium-selective agent that prolongs the atrial effective refractory period without prolonging the corrected QT interval and effectively prevents atrial fibrillation (AF) in anesthetized dogs after intraduodenal administration, indicates that oral acacetin is a promising atrium-selective agent for the treatment of AF. ^[4]

Acacetin attenuates neuroinflammation via regulation the response to LPS stimuli in vitro and in vivo, it may act as a potential therapeutic agent for brain diseases involving neuroinflammation.^[5]

Dietary acacetin can reduce airway hyperresponsiveness and eosinophil infiltration by modulating eotaxin-1 and th2 cytokines in a mouse model of asthma, suggests that dietary may improve symptoms in -sensitized.^[6]

Acacetin and ursolic acid, identified in *Agastache mexicana*, have spasmolytic and antinociceptive activities. ^[7]

[Solvent]

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

[HPLC Method]^[8]

Mobile phase: Methanol-0.2% Phosphatic acid H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 350 nm.

[Storage]

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

[References]

- [1] Pan M H, Lai C S, Wang Y J, *et al. Biochem. Pharmacol.*, 2006, 72(10):1293-303.
- [2] Shim H Y, Park J H, Paik H D, *et al. Mol. Cells*, 2007, 24(1):95-104.
- [3] Singh R P, Agrawal P, Yim D, *et al. Carcinogenesis*, 2005, 26(4):845-54.
- [4] Li G R, Wang H B, Qin G W, *et al. Circulation*, 2008, 117(19):2449-57.
- [5] Sang K H, Moon E, Lee P, *et al. Neurochem. Res.*, 2012, 37(7):1560-7.
- [6] Huang W C, Liou C J. *Evid.-Based Compl. Alt. M.*, 2012, 2012(5):155-237.
- [7] González-Trujano M E, Ventura-Martínez R, Chávez M, *et al. Planta Med.*, 2012, 78(8):793-6.
- [8] Shen H, Guo Q, Fang H, *et al. China Journal of Chinese Materia Medica*, 2010, 35(2):191-3.

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