

Naringenin chalcone Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Naringenin chalcone

Catalog No.: CFN90606

Cas No.: 73692-50-9

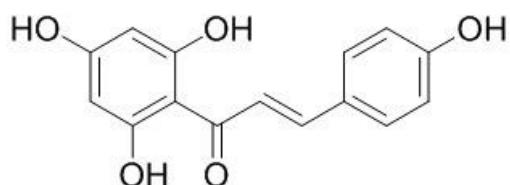
Purity: > 98%

M.F: C₁₅H₁₂O₅

M.W: 272.25

Physical Description: Powder

Synonyms: (E)-3-(4-hydroxyphenyl)-1-(2,4,6-trihydroxyphenyl)-2-propen-1-one.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The peel of *Citrus maxima*.

[Biological Activity or Inhibitors]

Naringenin chalcone exhibits anti-inflammatory properties by inhibiting the production of proinflammatory cytokines in the interaction between adipocytes and macrophages, it may be useful for ameliorating the inflammatory changes in obese adipose tissue.^[1]

Naringenin chalcone shows the strongest inhibitory effect of the polyphenols of the tomato skin extract, it inhibits histamine release with an IC₅₀ value of 68 microg/ml, indicates that a tomato skin extract could inhibit allergic reactions; it is a potent tomato flavonoid that improves adipocyte metabolic functions and exerts insulin-sensitizing effects by activating an adiponectin-related pathway. ^[2,3]

Naringenin chalcone suppresses asthmatic symptoms by inhibiting Th2 cytokine production from CD4 T cells, thus, it may be a useful supplement for the suppression of allergic symptoms in humans.^[4]

Naringenin chalcone has anti-cancer effect, which is mediated via the induction of autophagy, apoptosis and activation of PI3K/Akt signalling pathway.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Acetonitrile-H₂O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 260 nm.

[Storage]

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

[References]

- [1] Hirai S, Kim Y I, Goto T, et al. *Electromagnetic separation of radioactive isotopes* : Springer, 1961:1272-9.
- [2] Horiba T, Nishimura I, Nakai Y, et al. *Mol. Cell. Endocrinol.*, 2010, 323(2):208–14.
- [3] Yamamoto T, Yoshimura M, Yamaguchi F, et al. *Biosci. Biotechnol. Biochem.*, 2004, 68(8):1706-11.
- [4] Iwamura C, Shinoda K, Yoshimura M, et al. *Allergol. Int.*, 2010, 59(59):67-73.
- [5] Zhang S, Jiang Z F, Pan Q, et al. *Bangl. J. Pharmacol.* 2016, 11(3):684.
- [6] Anjos O, Amâncio D, Serrano M, et al. *Planta Med.*, 2014, 80(16):80-2.

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