

Hesperetin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Hesperetin

Catalog No.: CFN98842

Cas No.: 520-33-2

Purity: > 98%

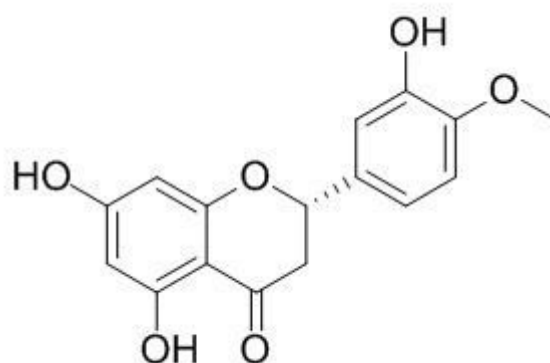
M.F: C₁₆H₁₄O₆

M.W: 302.3

Physical Description: Powder

Synonyms:

(2S)-5,7-dihydroxy-2-(3-hydroxy-4-methoxyphenyl)-3,4-dihydro-2H-1-benzopyran-4-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 fruits of *Citrus aurantium L.*

[Biological Activity or Inhibitors]

Hesperetin exerts dose dependent chemopreventive effect against 1,2-dimethyl hydrazine induced rat colon carcinogenesis.^[1]

Hesperetin has antioxidant activity, plays a protective role against 7,12-dimethylbenz(a)anthracene (DMBA)-induced oxidative stress; suppresses COX-2 gene expression may be a consequence of their antioxidant activity; is a powerful peroxynitrite (ONOO⁻)- scavenger and promotes cellular defense activity in the protection against ONOO⁻ involved diseases.^[2-4]

Hesperetin has inhibitory effects on Kv1.5 potassium channels stably expressed in HEK 293 cells and ultra-rapid delayed rectifier K⁺ current in human atrial myocytes.^[5]

Hesperetin, has antiplatelet activity, is mainly mediated by inhibition of PLC- γ 2 phosphorylation and cyclooxygenase-1 activity.^[6]

Hesperetin mediates protection against doxorubicin-induced cardiotoxicity through nuclear factor-kappa B, p38, and caspase-3, indicates the protective effect of hesperetin against doxorubicin-induced cardiotoxicity.^[7]

[Solvent]

Chloroform, Dichloromethane, DMSO, Acetone, etc.

[HPLC Method]^[8]

Mobile phase: n-Hexane-Ethanol-Trifluoroacetic acid=20:80:0.5;

Flow rate: 0.8 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 288 nm.

[Storage]

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

[References]

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- [5] Wang H, Wang H F, Chen W, *et al. Eur. J. Pharmacol.*, 2016, 789 :98-108.
- [6] Jin Y R, Han X H, Zhang Y H, *et al. Atherosclerosis*, 2007, 194(1):144-52.
- [7] Trivedi P P, Kushwaha S, Tripathi D N, *et al. Cardiovasc Toxicol.*, 2011, 11(3):215-25.
- [8] Wan L, Sun X, Xu Z, *et al. China Pharmacist*, 2010, 13(08):1082-4.

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