Hesperetin
Item No. 10006084

CAS Registry No.: 520-33-2
Formal Name: 2,3-dihydro-5,7-dihydroxy-2S-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one
MF: C16H14O6
FW: 302.3
Purity: ≥98%
Stability: ≥2 years at room temperature
Supplied as: A crystalline solid
UV/Vis.: λmax: 204, 288 nm

Laboratory Procedures
For long term storage, we suggest that hesperetin be stored as supplied at room temperature. It should be stable for at least two years.

Hesperetin is supplied as a crystalline solid. A stock solution may be made by dissolving the hesperetin in an organic solvent purged with an inert gas. Hesperetin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of hesperetin in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Hesperetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hesperetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Hesperetin has a solubility of approximately 0.5 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The flavones and flavonoids are a widespread group of natural products with a variety of reported beneficial health effects. Flavonoids have been implicated as possible active agents in the dietary benefits of citrus fruits. Hesperetin is a citrus flavonoid that has been reported to lower plasma cholesterol. Hesperetin reduces the transcription of ACAT-2 mRNA in HepG2 cells and reduces ApoB protein synthesis in a dose-dependent manner. The EC50 for these responses is approximately 50 µM. Hesperetin also inhibits histamine release from IgE-challenged RBL-2H3 cells, with a potency comparable to the commercial anti-allergy drug azelastine.

References

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