

PRODUCT INFORMATION



Hesperetin 7-O-glucoside

Item No. 34545

CAS Registry No.: 31712-49-9

Formal Name: (2S)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one

MF: C₂₂H₂₄O₁₁

FW: 464.4

Purity: ≥98%

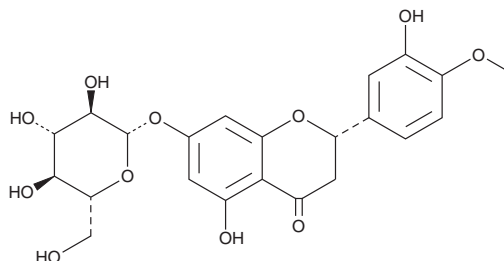
UV/Vis.: λ_{max}: 286 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Plant/Unspecified sp.



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Hesperetin 7-O-glucoside is supplied as a solid. A stock solution may be made by dissolving the hesperetin 7-O-glucoside in the solvent of choice, which should be purged with an inert gas. Hesperetin 7-O-glucoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of hesperetin 7-O-glucoside in these solvents is approximately 10 and 5 mg/ml, respectively.

Hesperetin 7-O-glucoside is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hesperetin 7-O-glucoside should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Hesperetin 7-O-glucoside has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hesperetin 7-O-glucoside is a flavanone glucoside that has been found in immature citrus fruits and has diverse biological activities.¹⁻³ It is active against *H. pylori* when used at a concentration of 0.5 mM.² Hesperetin 7-O-glucoside scavenges DPPH (Item No. 14805) radicals (IC₅₀ = 2.04 mM) and inhibits the activity of intestinal maltase and HMG-CoA reductase (K_is = 1,800 and 9.8 μM, respectively, for the human enzymes) in cell-free assays.^{1,2} Dietary administration of hesperetin 7-O-glucoside (2.5 and 5 g/kg diet) prevents decreases in bone mineral density in the femur of ovariectomized rats.³

References

1. Liu, A., Huang, B., Lei, L., et al. Production of high antioxidant activity flavonoid monoglucosides from citrus flavanone with immobilised α-L-rhamnosidase in one step. *Int. J. Food Sci. Tech.* **54**(10), 2854-2862 (2019).
2. Lee, Y.-S., Huh, J.-Y., Nam, S.-H., et al. Enzymatic bioconversion of citrus hesperidin by *Aspergillus sojae* naringinase: Enhanced solubility of hesperetin-7-O-glucoside with *in vitro* inhibition of human intestinal maltase, HMG-CoA reductase, and growth of *Helicobacter pylori*. *Food Chem.* **135**(4), 2253-2259 (2012).
3. Habauzit, V., Nielsen, I.-L., Gil-Izquierdo, A., et al. Increased bioavailability of hesperetin-7-glucoside compared with hesperidin results in more efficient prevention of bone loss in adult ovariectomised rats. *Br. J. Nutr.* **102**(7), 976-984 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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