

PRODUCT INFORMATION



Hesperidin

Item No. 18646

CAS Registry No.: 520-26-3
Formal Name: 7-[[6-O-(6-deoxy- α -L-mannopyranosyl)- β -D-glucopyranosyl]oxy]-2,3-dihydro-5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-(2S)-4H-1-benzopyran-4-one

Synonyms: Cirantin, Hesperidoside, NSC 44184

MF: $C_{28}H_{34}O_{15}$

FW: 610.6

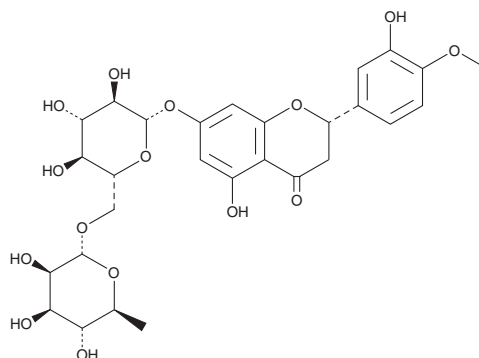
Purity: $\geq 90\%$

UV/Vis.: λ_{max} : 283 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years



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

Laboratory Procedures

Hesperidin is supplied as a crystalline solid. A stock solution may be made by dissolving the hesperidin in the solvent of choice, which should be purged with an inert gas. Hesperidin is soluble in the organic solvents DMSO and dimethyl formamide. The solubility of hesperidin in these solvents is approximately 5 and 3 mg/ml, respectively.

Hesperidin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hesperidin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Hesperidin has a solubility of approximately 0.5 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hesperidin is a flavanone rutinoside first isolated from citrus peels. It is metabolized by intestinal bacteria to an aglycone form, hesperetin (Item No. 10006084), which is thought to be more bioavailable due to reduced polarity that allows for increased cell permeability.^{1,2} At 100 μM , hesperidin has been shown to increase the cytotoxicity of doxorubicin (Item No. 15007) on MCF-7 and HeLa cancer cells *in vitro* by inhibiting cell cycle progression and upregulating apoptosis.¹ It also is reported to produce estrogenic effects, decreasing serum and hepatic lipid concentrations and reducing osteoporosis in ovariectomized rats.¹ Hesperidin produces free radical scavenging activity in various *in vitro* antioxidant assays.¹

References

1. Meiyanto, E., Hermawan, A., and Anindyajati. Natural products for cancer-targeted therapy: Citrus flavonoids as potent chemopreventive agents. *Asian Pac. J. Cancer Prev.* **13**(2), 427-436 (2012).
2. Serra, H., Mendes, T., Bronze, M.R., et al. Prediction of intestinal absorption and metabolism of pharmacologically active flavones and flavanones. *Bioorg. Med. Chem.* **16**(7), 4009-4018 (2008).

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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