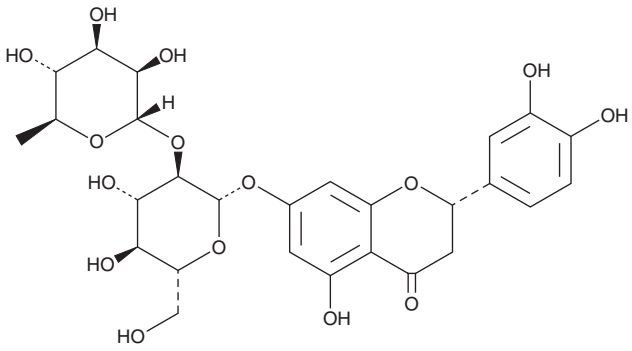
PRODUCT INFORMATION

Neoeriocitrin

Item No. 25839

CAS Registry No.:	13241-32-2
Formal Name:	(2S)-7-[[2-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-2,3-dihydro-5-hydroxy-4H-1-benzopyran-4-one
Synonym:	Eriodictyol 7-O-neohesperidoside
MF:	$C_{27}H_{32}O_{15}$
FW:	596.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 285 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Aurantii fructus immaturus*



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

Laboratory Procedures

Neoeriocitrin is supplied as a crystalline solid. A stock solution may be made by dissolving the neoeriocitrin in the solvent of choice. Neoeriocitrin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of neoeriocitrin in these solvents is approximately 1, 30, and 15 mg/ml, respectively.

Neoeriocitrin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, neoeriocitrin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Neoeriocitrin has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Neoeriocitrin is a flavonoid that has been found in *C. paradisi* and has antioxidative and osteogenic activities.[1,2] It inhibits the production of 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals by 17.2% and the formation of superoxide radicals by 48.3% in cell-free assays, as well as decreases the rate of LDL oxidation *ex vivo* in isolated hamster plasma. Neoeriocitrin (2 µg/ml) increases proliferation of MC3T3-E1 osteoblast percursor cells and reverses the antiproliferative effect of the MEK1 inhibitor PD 98059 (Item No. 10006726).[2] It also increases the expression of the osteogenic differentiation markers Runx2, Type 1 collagen, and osteocalcin.

References

1. Yu, J., Wang, L., Walzem, R.L., *et al.* Antioxidant activity of citrus limonoids, flavonoids, and coumarins. *J. Agric. Food Chem.* **53(6)**, 2009-2014 (2005).
2. Li, L., Zeng, Z., and Cai, G. Comparison of neoeriocitrin and naringin on proliferation and osteogenic differentiation in MC3T3-E1. *Phytomedicine* **18(11)**, 985-989 (2011).

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