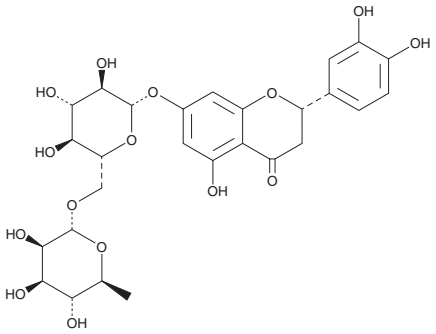
PRODUCT INFORMATION

Eriocitrin

Item No. 25838

CAS Registry No.: 13463-28-0
Formal Name: (2S)-7-[[6-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-2,3-dihydro-5-hydroxy-4H-1-benzopyran-4-one
Synonyms: Eriodictioside, Eriodictyol 7-O-rutinoside
MF: $C_{27}H_{32}O_{15}$
FW: 596.5
Purity: ≥98%
UV/Vis.: λ_{max}: 284 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

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

Eriocitrin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, eriocitrin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Eriocitrin 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

Eriocitrin is a flavonoid originally isolated from lemon peel that has antioxidant and enzyme inhibitory activity.[1-5] Eriocitrin inhibits lipid peroxidation in a cell-free assay when used at a concentration of 10 µM and enhances the effect of α-tocopherol (Item No. 25985) on lipid peroxidation.[2] It also decreases thiobarbituric acid reactive substances (TBARS) in rat plasma when administered at a dose of 75 µmol/kg, indicating a reduction in lipid peroxidation.[3] Eriocitrin prevents acute exercise-induced increases in TBARS, N^{ε}-(hexanoyl)lysine (HEL), *o,o*-dityrosine (DT), and nitrotyrosine (NT; Item No. 89540) in rat liver when administered at a dose of 600 mg/kg prior to exercise.[4] It is also an inhibitor of monoamine oxidase A (MAO-A) and MAO-B (IC_{50}s = 86.5 and 164 µM, respectively, for human recombinant receptors).[5]

References

1. Horowitz, R.M. and Gentili, B. *J. Am. Chem. Soc.* **82(11)**, 2803-2806 (1960).
2. Miyake, Y., Yamamoto, K., and Osawa, T. *Food Sci. Technol. Int. Tokyo* **3(1)**, 84-89 (1997).
3. Miyake, Y., Shimoi, K., Kumazawa, S., *et al. J. Agric. Food Chem.* **48(8)**, 3217-3224 (2000).
4. Minato, K., Miyake, Y., Fukumoto, S., *et al. Life Sci.* **72(14)**, 1609-1616 (2003).
5. Carradori, S., Gidaro, M.C., Petzer, A., *et al. J. Agric. Food Chem.* **64(47)**, 9004-9011 (2016).

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.

WARRANTY AND LIMITATION OF REMEDY
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