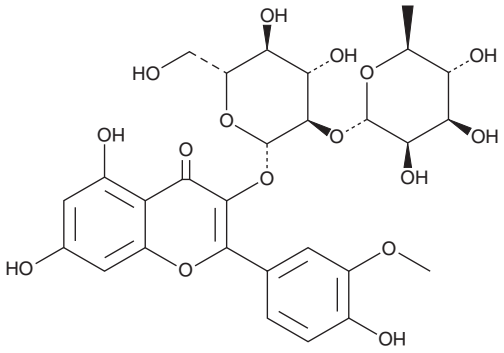
PRODUCT INFORMATION

Isorhamnetin 3-O-neohesperidoside

Item No. 34604

CAS Registry No.: 55033-90-4
Formal Name: 3-[[2-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-4H-1-benzopyran-4-one
Synonyms: Calendoflavoside, Isorhamnetin-3-O-nehesperridin, Isorhamnetin-3-O-neohesperidine, Isorhamnetin 3-O-neohesperoside
MF: $C_{28}H_{32}O_{16}$
FW: 624.5
Purity: ≥98%
UV/Vis.: λ_{max}: 254, 355 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Typha angustifolia*



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

Laboratory Procedures

Isorhamnetin 3-O-neohesperidoside is supplied as a solid. A stock solution may be made by dissolving the isorhamnetin 3-O-neohesperidoside in the solvent of choice, which should be purged with an inert gas. Isorhamnetin 3-O-neohesperidoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of isorhamnetin 3-O-neohesperidoside in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of isorhamnetin 3-O-neohesperidoside can be prepared by directly dissolving the solid in aqueous buffers. Isorhamnetin 3-O-neohesperidoside is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Isorhamnetin 3-O-neohesperidoside is a flavonoid glycoside that has been found in *A. salicina* and has antioxidant and osteoclastogenic activities.[1,2] It inhibits xanthine oxidase and scavenges superoxide radicals in a cell-free assay (IC_{50}s = 48.75 and 30 µg/ml, respectively).[1] Isorhamnetin 3-O-neohesperidoside promotes RANKL-induced osteoclastogenesis of mouse bone marrow-derived macrophages in a concentration-dependent manner.[2]

References

1. Bouhlel, I., Limem, I., Skandrani, I., *et al.* Assessment of isorhamnetin 3-*O*-neohesperidoside from *Acacia salicina*: Protective effects toward oxidation damage and genotoxicity induced by aflatoxin B1 and nifuroxazide. *J. Appl. Toxicol.* **30(6)**, 551-558 (2010).
2. Yu, X., Zheng, F., Shang, W., *et al.* Isorhamnetin 3-O-neohesperidoside promotes the resorption of crown-covered bone during tooth eruption by osteoclastogenesis. *Sci. Rep.* **10(1)**, 5172 (2020).

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