

## Rhamnocitrin 3-glucoside

## Chemical Properties

CAS No.:	41545-37-3
Formula:	C <sub>22</sub> H <sub>22</sub> O <sub>11</sub>
Molecular Weight:	N/A
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

In vitro	Eleutherococcus sieboldianus (Makino) Koidz. is a local product from the area in and around Yonezawa City in Yamagata Prefecture, Japan. It has been used as a medicinal plant for a long time. METHODS AND RESULTS: We isolated and identified four types of flavonoid glycosides [astragalin (1), isoquercetin (2), rhamnocitrin 3-O-glucoside (Rhamnocitrin 3-glucoside, 3), and nicotiflorin (4)], a triterpene [methyl hederagenin (5)], and three types of triterpene glycosides [ $\delta$ -hederin (6), echinocystic acid 3-O-arabinoside (7), and cauloside B (8)] from the methanol extract of E. sieboldianus, which regulates lipid accumulation in 3T3-L1 preadipocytes. Among the compounds isolated, 2 and 8 up- and down-regulated lipid accumulation and insulin induced adipocyte differentiation in 3T3-L1 preadipocytes. CONCLUSIONS: Compound 2 induced up-regulation of lipid accumulation and decreased adipocyte size, while 8 down-regulated lipid accumulations without decreasing cell size. Additionally, 2 increased adipogenic proteins [peroxisome proliferator-activated receptor $\gamma$ (PPAR $\gamma$ ), CCAAT/enhancer-binding protein alpha (C/EBP $\alpha$ ), and fatty-acid-binding protein 4 (FABP4)]. In contrast, 8 decreased the levels of all adipogenic proteins and glucose transporter type 4 (GLUT4), but increased adiponectin.
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## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Effects of Flavonoids and Triterpene Analogues from Leaves of Eleutherococcus sieboldianus (Makino) Koidz. 'Himeukogi' in 3T3-L1 Preadipocytes. Molecules, 2017, 22(4):671-.
1. Effects of Flavonoids and Triterpene Analogues from Leaves of Eleutherococcus sieboldianus (Makino) Koidz. 'Himeukogi' in 3T3-L1 Preadipocytes. Molecules, 2017, 22(4):671-.

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