

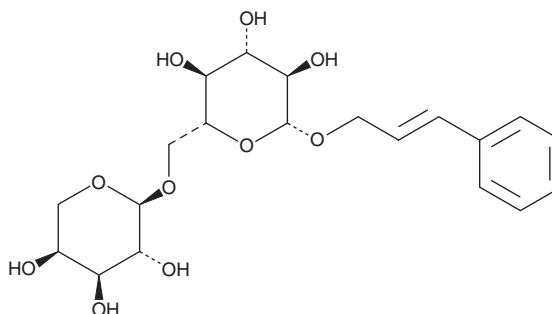
PRODUCT INFORMATION



Rosavin

Item No. 39839

CAS Registry No.: 84954-92-7
Formal Name: (2E)-3-phenyl-2-propen-1-yl
6-O- α -L-arabinopyranosyl- β -D-
glucopyranoside
MF: C₂₀H₂₈O₁₀
FW: 428.4
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Rhodiola rosea*



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

Laboratory Procedures

Rosavin is supplied as a solid. A stock solution may be made by dissolving the rosavin in the solvent of choice, which should be purged with an inert gas. Rosavin is soluble in the organic solvent methanol.

Description

Rosavin is a diglycoside that has been found in *R. rosea* and has diverse biological activities.¹⁻⁴ It scavenges DPPH (Item No. 14805) radicals in a cell-free assay (IC₅₀ = 5.86 μ g/ml).¹ Rosavin (5-100 μ M) inhibits the proliferation of NCI H69, NCI H526, and NCI H446 small cell lung cancer (SCLC) cells.² It induces apoptosis and cell cycle arrest at the G₀/G₁ phase in the same cells. It inhibits the growth of Jurkat T cells induced by concanavalin A (Item No. 14951) or anti-CD3 and anti-CD28 antibodies (IC₅₀s = 80 and 74 μ M, respectively) and reduces TRAIL levels in isolated mouse splenic T cells when used at concentrations of 0.5, 5, and 50 μ M.³ Rosavin (100 mg/kg) reduces ferroptosis-related mitochondrial changes and increased levels of 4-hydroxy nonenal (4-HNE; Item No. 32100) and malondialdehyde (MDA) in type II alveolar epithelial cells, as well as reduces lung tissue iron levels, in a rat model of lung injury induced by intratracheal administration of fine particulate matter with a diameter of less than 2.5 μ m (PM_{2.5}).⁴ It also reduces PM_{2.5}-induced increases in a lung injury score and TNF- α and IL-1 β levels in bronchoalveolar lavage fluid (BALF) in the same model.

References

1. Zhong, L., Peng, L., Fu, J., *et al.* Phytochemical, antibacterial and antioxidant activity evaluation of *Rhodiola crenulata*. *Molecules* **25**(16), 3664 (2020).
2. Liu, R., Jiang, C., Zhao, Z., *et al.* Rosavin exerts an antitumor role and inactivates the MAPK/ERK pathway in small-cell lung carcinoma *in vitro*. *Acta Pharm.* **73**(2), 269-280 (2023).
3. Marchev, A.S., Dimitrova, P., Koycheva, I.K., *et al.* Altered expression of TRAIL on mouse T cells via ERK phosphorylation by *Rhodiola rosea* L. and its marker compounds. *Food Chem. Toxicol.* **108**(Pt B), 419-428 (2017).
4. Wang, Y., Zhao, S., Jia, N., *et al.* Pretreatment with rosavin attenuates PM_{2.5}-induced lung injury in rats through anti-ferroptosis via PI3K/Akt/Nrf2 signaling pathway. *Phytother. Res.* **37**(1), 195-210 (2023).

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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