

PRODUCT INFORMATION



Trifolirhizin

Item No. 34655

CAS Registry No.: 6807-83-6

Formal Name: β -D-glucopyranoside, 6aR,12aR-dihydro-6H-[1,3]dioxolo[5,6]benzofuro[3,2-c][1]benzopyran-3-yl
Synonyms: (-)-Maackiain-3-O-glucoside, Sophojaponicin B₁

MF: C₂₂H₂₂O₁₀

FW: 446.4

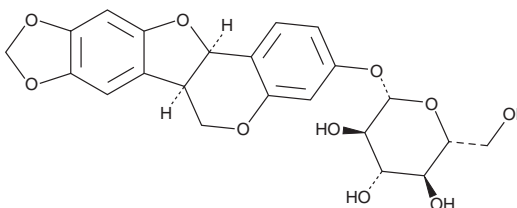
Purity: $\geq 98\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Plant/*Trifolium pratense*



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

Laboratory Procedures

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

Description

Trifolirhizin is a flavonoid that has been found in *S. flavescentis* and has anticancer and vasorelaxant activities.^{1,2} It induces the accumulation of LC3 puncta, a marker of autophagy, in HCT116 and SW620 cells, as well as inhibits proliferation of B16/F10 murine melanoma and human A2780 ovarian and MKN45 gastric cancer cells when used at a concentration of 20 μ M.¹ Trifolirhizin (10 m/kg) induces intratumor apoptosis and necrosis and reduces tumor weight and volume in a colorectal cancer mouse xenograft model. It also induces relaxation in precontracted isolated mouse aortic rings in a β_2 -adrenergic receptor-independent manner when used at concentrations ranging from 0.2 to 20 μ g/ml.²

References

1. Sun, D., Tao, W., Zhang, F., *et al.* Trifolirhizin induces autophagy-dependent apoptosis in colon cancer via AMPK/mTOR signaling. *Signal Transduct. Target. Ther.* **5**(1), 174 (2020).
2. Yang, N., Liang, B., Srivastava, K., *et al.* The *Sophora flavescentis* flavonoid compound trifolirhizin inhibits acetylcholine induced airway smooth muscle contraction. *Phytochemistry* **95**, 259-267 (2013).

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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