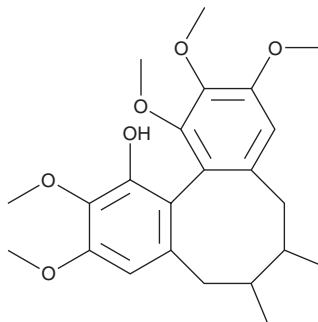


PRODUCT INFORMATION

Schisanhenol

Item No. 30109

CAS Registry No.: 69363-14-0
Formal Name: (6S,7R,12aR)-5,6,7,8-tetrahydro-2,3,10,11,12-pentamethoxy-6,7-dimethyldibenzo[a,c]cycloocten-1-ol
Synonyms: Gomisin K3, NSC 330515, Schisanhenol
MF: C₂₃H₃₀O₆
FW: 402.5
Purity: ≥98%
UV/Vis.: λ_{max}: 220 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Fructus Schisandrae*



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

Laboratory Procedures

Schisanhenol is supplied as a crystalline solid. A stock solution may be made by dissolving the schisanhenol in the solvent of choice, which should be purged with an inert gas. Schisanhenol is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of schisanhenol in these solvents is approximately 20 and 30 mg/ml, respectively.

Schisanhenol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, schisanhenol should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Schisanhenol has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Schisanhenol is a debenzocyclooctene lignan that has been found in *Schisandraceae* and has diverse biological activities.¹⁻⁴ It completely inhibits iron and cysteine-induced malondialdehyde (MDA) formation in rat liver microsomes when used at a concentration of 1 mM.¹ Schisanhenol reduces HIV-1 viral titers in H9 T cells (EC₅₀ = 5.7 μM).² Schisanhenol is protective against tobacco mosaic virus (TMV) infection in *N. glutinosa* when applied to leaves at concentrations ranging from 0.15 to 0.5 mM.³ Schisanhenol (10, 30, or 100 mg/kg, i.p.) prevents scopolamine-induced increases in hippocampal MDA and acetylcholinesterase (AChE) levels and decreases hippocampal superoxide dismutase (SOD) and glutathione peroxidase (GPX) activities, as well as increases time spent in the target quadrant in the Morris water maze in mice.⁴

References

1. Lu, H. and Liu, G.T. Anti-oxidant activity of dibenzocyclooctene lignans isolated from schisandraceae. *Planta. Med.* **58(4)**, 311-313 (1992).
2. Chen, M., Kilgore, N., Lee, K.H., et al. Rubrisandrins A and B, lignans and related anti-HIV compounds from *Schisandra rubriflor.* *J. Nat. Prod.* **69(12)**, 1697-1701 (2006).
3. Wang, Q.Y., Deng, L.L., Liu, J.J., et al. Schisanhenol derivatives and their biological evaluation against tobacco mosaic virus (TMV). *Fitoterapia.* **101**, 117-124 (2015).
4. Han, Y., Yang, H., Li, L., et al. Schisanhenol improves learning and memory in scopolamine-treated mice by reducing acetylcholinesterase activity and attenuating oxidative damage through SIRT1-PGC-1α-Tau signaling pathway. *Int. J. Neurosci.* **129(2)**, 110-118 (2018).

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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