

Product Data Sheet

Product Name: Sciadopitysin

Cat. No.: GC45561

Chemical Properties

Cas. No. 521-34-6

SMILES OC1=CC(O)=C2C(OC(C3=CC=C(OC)C=C3)=CC2=O)=C1C4=CC(C(OC5=C6C(O)=CC(OC)=C5)=CC6=O)=CC=C4OC

Formula C₃₃H₂₄O₁₀

M.Wt 580.5

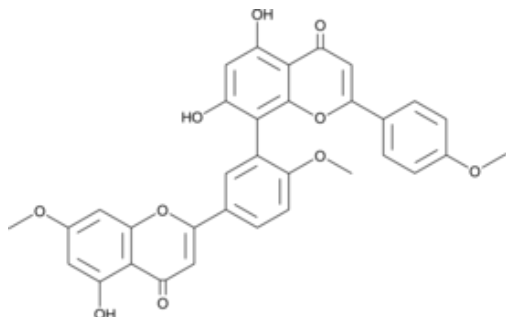
Solubility DMF: 12 mg/ml, DMSO: 12 mg/ml, Ethanol: partially soluble, PBS (pH 7.2): partially soluble

Storage 4°C, protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Sciadopitysin is a biflavonoid originally isolated from *G. biloba* and has diverse biological activities.^{1,2,3,4} It reduces cytotoxicity induced by amyloid- β (1-42) in PC12 cells (EC_{50} = 9.84 μ M).² Sciadopitysin (0.1-10 μ M) decreases methylglyoxal-induced insulin secretion, production of reactive oxygen species (ROS), cardiolipin peroxidation, and cytotoxicity in RIN-m5F pancreatic β -cells.³ It inhibits P-glycoprotein (P-gp; IC_{50} = 53.42 μ M) and increases cellular toxicity of paraquat and paclitaxel in MDR1-MDCKII cells.⁵ Sciadopitysin inhibits RANKL-induced mRNA expression of the osteoclast-specific genes CTSK, TRAP, and MMP-9, activation of NF- κ B, and osteoclastogenesis in a mouse model of LPS-induced bone loss.⁴

Caution: Product has not been fully validated for medical applications. For research use only.

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References

1. Brian•on-Scheid, F., Lobstein-Guth, A., and Anton, R. HPLC separation and quantitative determination of biflavones in leaves from ginkgo biloba. *Planta Med.* 49(12), 204-207 (1983).
2. Sasaki, H., Kitoh, Y., Tsukada, M., et al. Inhibitory activities of biflavonoids against amyloid- β peptide 42 cytotoxicity in PC-12 cells. *Bioorg. Med. Chem.* 25(14), 2831-2833 (2015).
3. Suh, K.S., Chon, S., and Choi, E.M. The protective effects of sciadopitysin against methylglyoxal-induced cytotoxicity in cultured pancreatic β -cells. *J. Appl. Toxicol.* 38(8), 1104-1111 (2018).
4. Cao, J., Lu, Q., Liu, N., et al. Sciadopitysin suppresses RANKL-mediated osteoclastogenesis and prevents bone loss in LPS-treated mice. *Int. Immunopharmacol.* 49, 109-117 (2017).
5. Bai, J., Zhao, S., Fan, X., et al. Inhibitory effects of flavonoids on P-glycoprotein in vitro and in vivo: Food/herb-drug interactions and structure-activity relationships. *Toxicol. Appl. Pharmacol.* 369, 49-59 (2019).

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