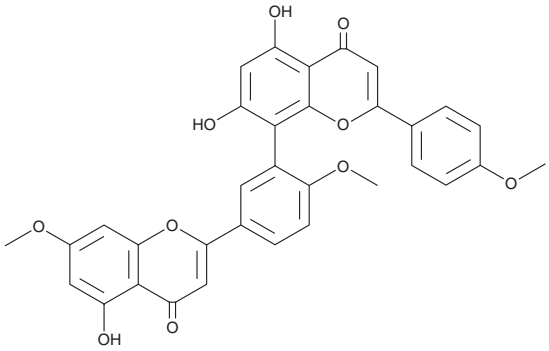
PRODUCT INFORMATION

Sciadopitysin

Item No. 27900

CAS Registry No.:	521-34-6
Formal Name:	5,7-dihydroxy-8-[5-(5-hydroxy-7-methoxy-4-oxo-4H-1-benzopyran-2-yl)-2-methoxyphenyl]-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one
Synonym:	NSC 45108
MF:	$C_{33}H_{24}O_{10}$
FW:	580.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 213, 273, 323 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Ginkgo biloba* L.



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

Laboratory Procedures

Sciadopitysin is supplied as a solid. A stock solution may be made by dissolving the sciadopitysin in the solvent of choice, which should be purged with an inert gas. Sciadopitysin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of sciadopitysin in these solvents is approximately 12 mg/ml. Sciadopitysin is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of sciadopitysin can be prepared by directly dissolving the solid in aqueous buffers. Sciadopitysin is slightly soluble in PBS, pH 7.2. We do not recommend storing the aqueous solution for more than one day.

Description

Sciadopitysin is a biflavonoid originally isolated from *G. biloba* and has diverse biological activities.[1-4] It reduces cytotoxicity induced by amyloid-β (1-42) (Aβ42; Item No. 20574) in PC12 cells (EC_{50} = 9.84 µM).[2] Sciadopitysin (0.1-10 µM) 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 µM) and increases cellular toxicity of paraquat and paclitaxel (Item No. 10461) in MDR1-MDCKII cells.[4] Sciadopitysin inhibits RANKL-induced mRNA expression of the osteoclast-specific genes CTSK, TRAP, and MMP-9, activation of NF-κB, and osteoclastogenesis in a mouse model of LPS-induced bone loss.[4]

References

1. Briançon-Scheid, F., Lobstein-Guth, A., and Anton, R. *Planta Med.* **49(12)**, 204-207 (1983).
2. Sasaki, H., Kitoh, Y., Tsukada, M., *et al. Bioorg. Med. Chem.* **25(14)**, 2831-2833 (2015).
3. Suh, K.S., Chon, S., and Choi, E.M. *J. Appl. Toxicol.* **38(8)**, 1104-1111 (2018).
4. Cao, J., Lu, Q., Liu, N., *et al. Int. Immunopharmacol.* **49**, 109-117 (2017).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM