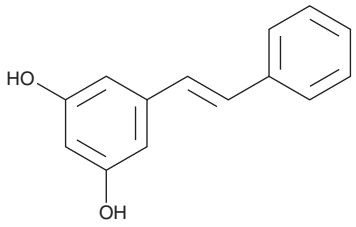
PRODUCT INFORMATION

Pinosylvin

Item No. 27612

CAS Registry No.:	22139-77-1
Formal Name:	5-[(1E)-2-phenylethenyl]-1,3-benzenediol
Synonym:	*trans*-3,5-Dihydroxystilbene
MF:	$C_{14}H_{12}O_2$
FW:	212.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 211, 301, 309 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Pinosylvin is supplied as a solid. A stock solution may be made by dissolving the pinosylvin in the solvent of choice, which should be purged with an inert gas. Pinosylvin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pinosylvin in ethanol is approximately 20 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Pinosylvin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pinosylvin should first be dissolved in ethanol or DMF and then diluted with the aqueous buffer of choice. Pinosylvin has a solubility of approximately 0.01 mg/ml in a 1:50 solution of ethanol:PBS (pH 7.2) or DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pinosylvin is a stilbene originally isolated from pine heartwood that has diverse biological activities.[1-6] It activates sirtuin 1 (SIRT1) and induces glucose uptake in isolated rat L6 skeletal muscle myotubes.[2] Pinosylvin reduces radial growth in a panel of 28 plant pathogenic fungi when used at a concentration of 100 µg/ml.[3] It reduces expression of matrix metalloproteinase-2 (MMP-2), MMP-9, and membrane type 1-MMP in and inhibits migration of HT-1080 cells.[4] Pinosylvin (10 mg/kg, i.p.) reduces the number of tumor nodules and lung tumor weight in a CT26 mouse xenograft model of metastatic colon cancer. It decreases hind paw volume and myeloperoxidase (MPO) activity in a rat model of adjuvant-induced arthritis.[5] Pinosylvin also exhibits plant antifeedant activity against *L. americanus* (snowshoe hares).[6]

References

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2. Modi, S., Yaluri, N., Kokkola, T., *et al. Sci. Rep.* **7(1)**, 17606 (2017).
3. Seppänen, S.K., Syrjälä, L., von Weissenberg, K., *et al. Plant Cell. Rep.* **22(8)**, 584-593 (2004).
4. Park, E.-J., Park, H.-J., Chung, H.-J., *et al. J. Nutr. Biochem.* **23(8)**, 946-952 (2012).
5. Mačičková, T., Drábiková, K., Nosál', R., *et al. Neuro. Endocrinol. Lett.* **31(Suppl 2)**, 91-95 (2013).
6. Sullivan, T.P., Crump, D.R., Wieser, H., *et al. J. Chem. Ecol.* **18(7)**, 1151-1164 (1992).

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