

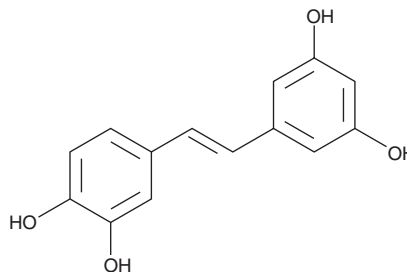
PRODUCT INFORMATION



Piceatannol

Item No. 10009366

CAS Registry No.: 10083-24-6
Formal Name: 4-[(1E)-2-(3,5-dihydroxyphenyl)ethenyl]-1,2-benzenediol
Synonyms: Astringenin, *trans*-Picetannol, *trans*-3,3',4,5'-Tetrahydroxystilbene
MF: C₁₄H₁₂O₄
FW: 244.2
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 327 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Piceatannol is supplied as a crystalline solid. A stock solution may be made by dissolving the piceatannol in the solvent of choice, which should be purged with an inert gas. Piceatannol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of piceatannol in these solvents is approximately 10, 5, and 3 mg/ml, respectively.

Piceatannol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, piceatannol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Piceatannol has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Piceatannol is a stilbene that has been found in red wine and an active metabolite of *trans*-resveratrol (Item No. 70675), a polyphenol with diverse biological activities.¹ It is formed from *trans*-resveratrol by the cytochrome P450 (CYP) isoform CYP1B1.^{1,2} Piceatannol induces apoptosis in BJAB B cell lymphoma cells (EC₅₀ = 25 μM).³ Dietary administration of piceatannol (0.025% w/w) improves intestinal epithelial barrier integrity, prevents decreases in colon length, and increases body weight in a mouse model of ulcerative colitis induced by dextran sodium sulfate (DSS; Item No. 23250).⁴

References

1. Potter, G.A., Patterson, L.H., Wanogho, E., *et al.* The cancer preventative agent resveratrol is converted to the anticancer agent piceatannol by the cytochrome P450 enzyme CYP1B1. *Br. J. Cancer* **86(5)**, 774-778 (2002).
2. Rotondo, S., Rajtar, G., Manarini, S., *et al.* Effect of *trans*-resveratrol, a natural polyphenolic compound, on human polymorphonuclear leukocyte function. *Br. J. Pharmacol.* **123(8)**, 1691-1699 (1998).
3. Wieder, T., Prokop, A., Bagci, B., *et al.* Piceatannol, a hydroxylated analog of the chemopreventive agent resveratrol, is a potent inducer of apoptosis in the lymphoma cell line BJAB and in primary, leukemic lymphoblasts. *Leukemia* **15(11)**, 1735-1742 (2001).
4. Lin, W.-S., Chueh, T.-L., Nagabhushanam, K., *et al.* Piceatannol and 3'-hydroxypterostilbene alleviate inflammatory bowel disease by maintaining intestinal epithelial integrity and regulating gut microbiota in mice. *J. Agric. Food Chem.* **71(4)**, 1994-2005 (2023).

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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