# **Product Information**



# Piceatannol

Item No. 10009366

CAS Registry No.:	10083-24-6	
Formal Name:	4-[(1E)-2-(3,5-dihydroxyphenyl)	OH
	ethenyl]-1,2-benzenediol	$\checkmark$
Synonyms:	Astringenin, trans-Picetannol, trans-	
	3,3',4,5'-Tetrahydroxystilbene	
MF:	$C_{14}H_{12}O_4$	ОН
FW:	244.2	
Purity:	≥98%	
Stability:	≥2 years at -20°C	HO'Y
Supplied as:	A crystalline solid	он Он
UV/Vis.:	$\lambda_{max}$ : 221, 327 nm	

# Laboratory Procedures

For long term storage, we suggest that piceatannol be stored as supplied at -20°C. It should be stable for at least two years.

Piceatannol is supplied as a crystalline solid. A stock solution may be made by dissolving the piceatannol in an organic solvent 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.

Resveratrol is a potent phenolic antioxidant found in the skin of grapes and red wine that has anti-proliferative, anti-inflammatory, and cardioprotective properties.<sup>1</sup> Piceatannol is a resveratrol analog formed by the cytochrome P450-catalyzed hydroxylation of resveratrol.<sup>2</sup> Piceatannol exhibits potent anticancer properties by inducing apoptosis in BJAB Burkitt-like lymphoma cells with an ED<sub>50</sub> value of 25 µM.<sup>3</sup> Piceantannol also exhibits anti-proliferative and anti-inflammatory effects by inhibiting the activity of a wide range of tyrosine and serine/threonine protein kinases and suppressing NF-κB activation through inhibition of IκBα kinase.<sup>4,5</sup>

# References

- 1. 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, 1691-1699 (1998).
- 2. 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 CYPIBI. Br. J. Cancer 86, 774-778 (2002).
- 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, 1735-1742 (2001).
- 4. Geahlen, R.L. and McLaughlin, J.L. Piceatannol (3,4,3',5'-tetrahydroxy-trans-stilbene) is a naturally occurring proteintyrosine kinase inhibitor. Biochem. Biophys. Res. Commun. 165(1), 241-245 (1989).
- Ashikawa, K., Majumdar, S., Banerjee, S., et al. Piceatannol inhibits TNF-induced NF-KB activation and NF-KB-5. mediated gene expression through suppression of IKBa kinase and p65 phosphorylation. J. Immunol. 169, 6490-6497 (2002).

## **Related Products**

For a list of related products please visit: www.caymanchem.com/catalog/10009366

WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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