

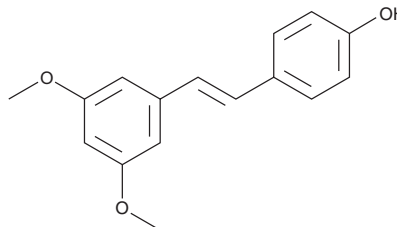
PRODUCT INFORMATION



Pterostilbene

Item No. 13000

CAS Registry No.: 537-42-8
Formal Name: 4-[(1E)-2-(3,5-dimethoxyphenyl)ethenyl]-phenol
Synonyms: 3',5'-Dimethoxy Resveratrol,
3',5'-Dimethoxy-4-Stilbenol,
trans-3,5-Dimethoxy-4'-Hydroxystilbene
MF: C₁₆H₁₆O₃
FW: 256.3
Purity: ≥98%
UV/Vis.: λ_{max}: 219, 309, 320 nm
Supplied as: A crystalline 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

Pterostilbene is supplied as a crystalline solid. A stock solution may be made by dissolving the pterostilbene in the solvent of choice, which should be purged with an inert gas. Pterostilbene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pterostilbene in ethanol is approximately 50 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Pterostilbene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pterostilbene should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Pterostilbene has a solubility of approximately 0.15 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pterostilbene is a polyketide synthase-derived stilbene originally isolated from *P. santalinus* that has diverse biological activities.¹⁻⁵ It reduces photooxidative leakage induced by the herbicide acifluorfen in *C. sativus* cotyledon disks when used at a concentration of 30 µg/ml.² Pterostilbene (25 and 50 µM) inhibits invasion and migration of HepG2 hepatoma cells induced by 12-O-tetradecanoylphorbol 13-acetate (TPA; Item No. 10008014).³ It inhibits the production of nitric oxide (NO) and prostaglandin E₂ (PGE₂; Item No. 14010) in LPS-stimulated RAW 264.7 macrophages when used at concentrations of 10 and 20 µM.⁴ Pterostilbene (100 and 300 µM) activates peroxisome proliferator-activated receptor α (PPARα) in H4IIEC3 rat hepatoma cells.⁵ It decreases plasma glucose and LDL levels and increases plasma levels of HDL in a hamster model of hypercholesterolemia induced by a high-fat diet when administered in the diet at 25 ppm.

References

1. Austin, M.B. and Noel, J.P. *Nat. Prod. Rep.* **20**(1), 79-110 (2003).
2. Rimando, A.M., Cuendet, M., Desmarchelier, C., et al. *J. Agric. Food Chem.* **50**(12), 3453-3457 (2002).
3. Pan, M.-H., Chiou, Y.-S., Chen, W.-J., et al. *Carcinogenesis* **30**(7), 1234-1242 (2009).
4. Pan, M.-H., Chang, Y.-H., Tsai, M.-L., et al. *J. Agric. Food Chem.* **56**(16), 7502-7509 (2008).
5. Rimando, A.M., Nagmani, R., Feller, D.R., et al. *J. Agric. Food Chem.* **53**(9), 3403-3407 (2005).

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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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