

Product Name: Resveratrol

Catalog No.: 1418

Batch No.: 4

CAS Number: 501-36-0

IUPAC Name: 5-[(1E)-2-(4-Hydroxyphenyl)ethenyl]-1,3,benzenediol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₂O₃·0.1H₂O

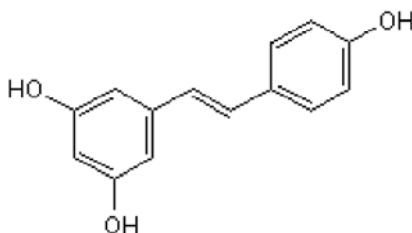
Batch Molecular Weight: 230.05

Physical Appearance: Off-white solid

Solubility: ethanol to 100 mM
DMSO to 100 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 73.1 5.35

Found 72.96 5.35

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

A phytoestrogen with antitumor, antioxidant, antiplatelet, anti-inflammatory and antifungal effects. Inhibits cytochrome P450 1A1 (IC₅₀ = 23 μM) and displays mixed agonist/antagonist actions at ERα and ERβ estrogen receptors. Converted into the anticancer agent piceatannol (Cat. No. 1554) by cytochrome P450 1B1. Activates autophagy. Also activates TRPA1 in prostate cancer-associated fibroblasts. Also SIRT1 activator.

Physical and Chemical Properties:

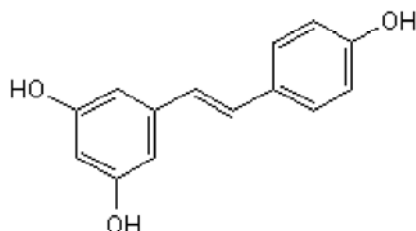
Batch Molecular Formula: C₁₄H₁₂O₃.0.1H₂O

Batch Molecular Weight: 230.05

Physical Appearance: Off-white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

ethanol to 100 mM

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Galluzzi et al (2017) Pharmacological modulation of autophagy: therapeutic potential and persisting obstacles. *Nat.Rev.Drug.Discov.* PMID: 28529316 .

Vancauwenberghe et al (2017) Activation of mutated TRPA1 ion channel by resveratrol in human prostate cancer associated fibroblasts (CAF). *Mol.Carcinog.* **56** 1851. PMID: 28277613.

Baptista et al (2013) Regulation of histone H2A.Z expression is mediated by sirtuin 1 in prostate cancer. *Oncotarget* **4** 1673. PMID: 24127549.

Baur and Sinclair (2006) Therapeutic potential of resveratrol: the *in vivo* evidence. *Nat.Rev.Drug Discov.* **5** 493. PMID: 16732220.

Bowers et al (2000) Resveratrol acts as a mixed agonist/antagonist for estrogen receptors α and β. *Endocrinology* **141** 3657. PMID: 11014220.

Fremont (2000) Biological effects of resveratrol. *Life Sci.* **66** 663. PMID: 10680575.

Chun et al (1999) Resveratrol is a selective human cytochrome P450 1A1 inhibitor. *Biochem.Biophys.Res.Commun.* **262** 20. PMID: 10448061.

Kimura et al (1985) Effects of stilbenes on arachidonate metabolism in leukocytes. *Biochim.Biophys.Acta* **834** 275. PMID: 3922423.

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