



# **Certificate of Analysis**

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Product Name: Resveratrol Catalog No.: 1418 Batch No.: 4

CAS Number: 501-36-0

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

# 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:  $C_{14}H_{12}O_3.0.1H_2O$ 

Batch Molecular Weight: 230.05

Physical Appearance: Off-white solid

Solubility: ethanol to 100 mM DMSO to 100 mM

Divide to 100 mm

Storage: Desiccate at +4°C

**Batch Molecular Structure:** 

### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity

<sup>1</sup>H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 73.1 5.35 Found 72.96 5.35





# **Product Information**

Print Date: Jul 12th 2012

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

#### **Description:**

A phytoestrogen with antitumor, antioxidant, antiplatelet, anti-inflammatory and antifungal effects. Inhibits cytochrome P450 1A1 (IC $_{50}$  = 23  $\mu$ M) and displays mixed agonist/antagonist actions at ER $\alpha$  and ER $\beta$  estrogen receptors. Converted into the anticancer agent piceatannol (Cat. No. 1554) by cytochrome P450 1B1.

# **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>12</sub>O<sub>3</sub>.0.1H<sub>2</sub>O

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:

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

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

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

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

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

