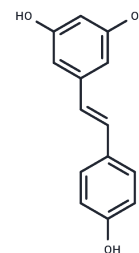


## Resveratrol

## Chemical Properties

CAS No. :	501-36-0
Formula:	C <sub>14</sub> H <sub>12</sub> O <sub>3</sub>
Molecular Weight:	228.24
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Resveratrol (SRT 501) is a polyphenolic natural product, a plant antitoxin with antioxidant and chemopreventive activities. Resveratrol has a wide range of targets including COX, SIRT, LOC, etc. Resveratrol induces autophagy and apoptosis.
Targets(IC50)	Beta Amyloid,Nrf2,NOD,DNA/RNA Synthesis,IkB/IKK,JAK,mTOR,Adenylate cyclase
In vitro	<p><b>METHODS:</b> Mouse mammary carcinoma cells 4T1 were treated with Resveratrol (50-250 <math>\mu</math>M) for 72 h. Cell viability was measured by CCK-8.</p> <p><b>RESULTS:</b> Resveratrol dose-dependently inhibited the viability of 4T1 cells with an IC50 of 93 <math>\mu</math>M. [1]</p> <p><b>METHODS:</b> Human breast cancer cells MCF-7 were treated with Resveratrol (1-100 <math>\mu</math>M) for 24 h, and the intracellular ATP content was detected by luciferin-luciferase assay.</p> <p><b>RESULTS:</b> Resveratrol decreased the cellular ATP content. It was reduced by about 16% at 1 <math>\mu</math>M Resveratrol and 50% at 100 <math>\mu</math>M Resveratrol. [2]</p>
In vivo	<p><b>METHODS:</b> To assay anti-tumor activity in vivo, Resveratrol (50-100 mg/kg, 5% ethanol and 25% polyethyleneglycol 400 in distilled water) was intraperitoneally injected into BALB/c (nu/nu) mice harboring the human ovarian teratoma PA-1 once daily for four weeks.</p> <p><b>RESULTS:</b> Resveratrol inhibited the growth of PA-1 cell xenografts and eEF1A2 expression. [3]</p> <p><b>METHODS:</b> To study the effects on depressed mice, Resveratrol (10-30 mg/kg) was administered intraperitoneally once daily for 21 days to C57BL/6 mice, a model of depression.</p> <p><b>RESULTS:</b> Resveratrol significantly increased the levels of the prefrontal cortex neurotransmitters DA and 5-HT, and increased the expression of NPY in the brain, which antagonized depression. [4]</p>
Cell Research	HAECs were treated with RSV in the presence of isobutylmethylxanthine (IBMX). The reaction was stopped by adding ice-cold 6% trichloroacetic acid and the supernatant fractions of the cellular lysates were extracted, dried and acetylated. Cyclic GMP levels were determined by an enzyme immunoassay kit and results standardized by protein levels [5].
Animal Research	Eight-week male apoE <sup>-/-</sup> mice (C57BL/6 background) were used in the study. Mice were housed in photobiologic light-exposure chambers with a 12:12-h light:dark cycle, and eat food ad libitum. Mice were randomly divided into two groups: one group receiving a high cholesterol diet (HCD, 21% fat, 19.5% casein, and 1.5% cholesterol), the other

## A DRUG SCREENING EXPERT

Animal Research	receiving HCD supplemented with RSV (200 mg/100 g diet). All mice were fed for 8 weeks. To identify the potential role of PKA, some mice were treated with PKA specific inhibitor (KT5720, 1.2 mg/kg) via intraperitoneal injection once a day at the last 4 weeks. The animal experiments were conducted according to the institutional guidelines of Guangdong Provincial People's Hospital [5].
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### Solubility Information

Solubility	DMSO: 131.3 mg/mL (575.27 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4.2 mg/mL (18.4 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3814 mL	21.9068 mL	43.8135 mL
5 mM	0.8763 mL	4.3814 mL	8.7627 mL
10 mM	0.4381 mL	2.1907 mL	4.3814 mL
50 mM	0.0876 mL	0.4381 mL	0.8763 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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