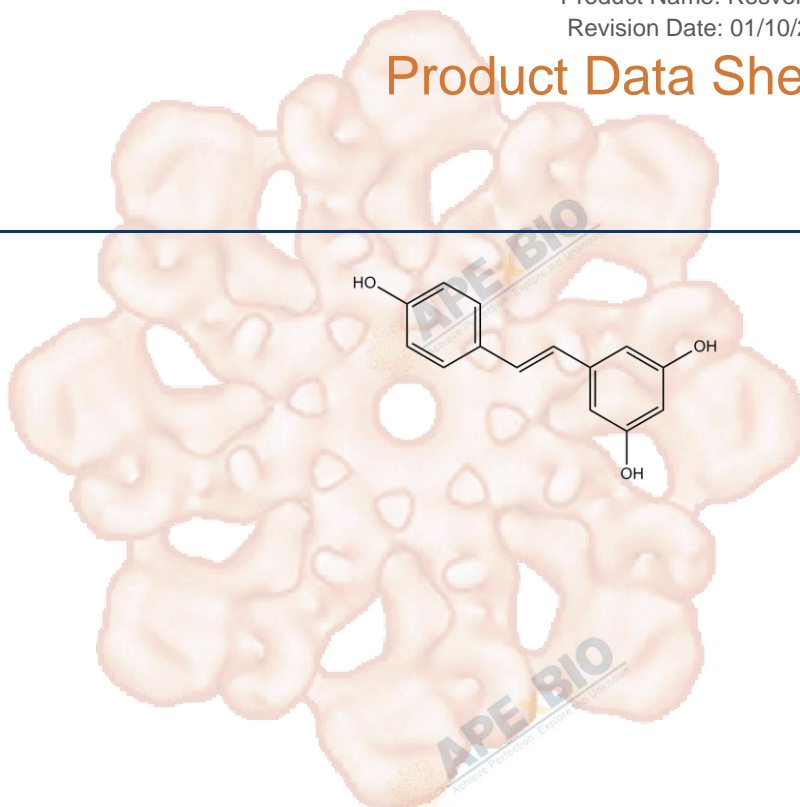


Product Data Sheet

Resveratrol

Cat. No.:	A4182
CAS No.:	501-36-0
Formula:	C ₁₄ H ₁₂ O ₃
M.Wt:	228.24
Synonyms:	
Target:	Chromatin/Epigenetics
Pathway:	Sirtuin
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥48.2 mg/mL in EtOH with ultrasonic; ≥9.65 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass Concentration	1mg	5mg	10mg
			1 mM	4.3814 mL	21.9068 mL
		5 mM	0.8763 mL	4.3814 mL	8.7627 mL
		10 mM	0.4381 mL	2.1907 mL	4.3814 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

SIRT1 activator

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	primary neuronal cultures; the neuroblastoma SH-SY5Y cell line
Preparation method:	The solubility of this compound in DMSO is >9.7mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0.1, 1, and 10 μM; 50 μM

	Applications:	In primary neuronal cultures, resveratrol (0.1, 1, and 10 μ M) inhibited OGD/reperfusion-induced apoptosis and inhibited the overexpression of caspase-3 and caspase-12 mRNA in a concentration-dependent way. In the neuroblastoma SH-SY5Y cell line, resveratrol (50 μ M) inhibited excess dopamine-induced cell death by ameliorating intracellular oxidative stress and increasing the activity of prosurvival gene Bcl-2.
In Vivo	Animal experiment	
	Animal models:	rats subjected to myocardial ischemia
	Dosage form:	2.5, 5.0, 25 or 50 mg/kg; fed for 14 days by gavaging
	Applications:	In rats subjected to myocardial ischemia, resveratrol (2.5, 5.0 mg/kg) exhibited cardioprotection by improved post-ischemic ventricular recovery and reduction of myocardial infarct size and cardiomyocyte apoptosis. However, 25 or 50 mg/kg dose of resveratrol inhibited cardiac function and increased myocardial infarct size and number of apoptotic cells.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Song Y, Chen Y, et al. "Resveratrol Suppresses Epithelial-Mesenchymal Transition in GBM by Regulating Smad-Dependent Signaling." Biomed Res Int. 2019 Apr 7;2019:1321973.PMID:31119150
2. Chou X, Ding F, et al. "Sirtuin-1 ameliorates cadmium-induced endoplasmic reticulum stress and pyroptosis through XBP-1s deacetylation in human renal tubular epithelial cells. Arch Toxicol." 2019 Feb 22.PMID:30796460

See more customer validations on www.apexbt.com.

References

- [1]. Nilendra Singh, Megha Agrawal, and Sylvain Doré. Neuroprotective Properties and Mechanisms of Resveratrol in in Vitro and in Vivo Experimental Cerebral Stroke Models. ACS Chem Neurosci. 2013 Aug 21; 4(8): 1151–1162.
- [2]. Dudley J1, Das S, Mukherjee S, et al. Resveratrol, a unique phytoalexin present in red wine, delivers either survival signal or death signal to the ischemic myocardium depending on dose. J Nutr Biochem. 2009 Jun;20(6):443-52.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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