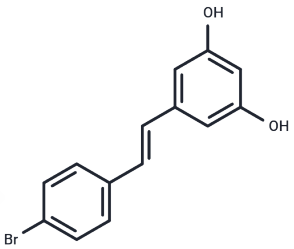
Data Sheet (Cat.No.T21679)

TargetMol

4'-bromo-Resveratrol

Chemical Properties



CAS No. : 1224713-90-9

Formula: C14H11BrO2

Molecular Weight: 291.14

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	4'-bromo-Resveratrolis a potent inhibitor of the deacetylases sirtuin 1 (SIRT1) and 3 (SIRT3)
Targets(IC50)	Apoptosis,Sirtuin
In vitro	4'-BR treatment of melanoma cells resulted in (a) decrease in proliferation and clonogenic survival;?(b) induction of apoptosis accompanied by a decrease in procaspase-3, procaspase-8, and increase in the cleavage of caspase-3 and poly (ADP-ribose) polymerase (PARP);?(c) marked downregulation of proliferating cell nuclear antigen (PCNA);?and (d) inhibition of melanoma cell migration.?Further, 4'-BR caused a G0/G1 phase arrest of melanoma cells that was accompanied by an increase in WAF-1/P21 and decrease in Cyclin D1/Cyclin-dependent kinase 6 protein levels.?4'-BR causes a decrease in lactate production, glucose uptake, and NAD+ /NADH ratio.?These responses were accompanied by downregulation in lactate dehydrogenase A and glucose transporter 1 in melanoma cells.[1]

Solubility Information

Solubility	DMSO: 30 mg/mL (103.04 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4348 mL	17.1739 mL	34.3477 mL
5 mM	0.687 mL	3.4348 mL	6.8695 mL
10 mM	0.3435 mL	1.7174 mL	3.4348 mL
50 mM	0.0687 mL	0.3435 mL	0.687 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.

Reference

George J , Nihal M , Singh C K , et al. 4′-Bromo-resveratrol, a dual Sirtuin-1 and Sirtuin-3 inhibitor, inhibits melanoma cell growth through mitochondrial metabolic reprogramming[J]. Molecular Carcinogenesis, 2019, 58.
Nguyen G , Gertz M , Steegborn C . Crystal Structures of Sirt3 Complexes with 4′-Bromo-Resveratrol Reveal Binding Sites and Inhibition Mechanism[J]. Chemistry & Biology, 2013, 20(11):1375-1385.