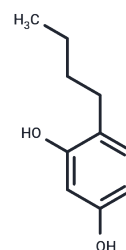


4-Butylresorcinol

Chemical Properties

CAS No. :	18979-61-8
Formula:	C ₁₀ H ₁₄ O ₂
Molecular Weight:	166.22
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-Butylresorcinol (Butylresorcinol) is a potent inhibitor of tyrosinase (IC ₅₀ : 11.27 μM), and is used in cosmetics as a depigmenting agent.
Targets(IC ₅₀)	Tyrosinase
In vitro	4-Butylresorcinol (4-n-butylresorcinol) significantly inhibits melanin synthesis in a concentration-dependent manner. It is also found to inhibit the activity of tyrosinase, the rate-limiting melanogenic enzyme. 4-Butylresorcinol does not induce ERK, Akt activation, or MITF degradation, and has no effect on cAMP response element binding protein (CREB) phosphorylation, which stimulates MITF expression.

Solubility Information

Solubility	DMSO: 250 mg/mL (1504.03 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (60.16 mM), Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (24.06 mM), Sonication is recommended. <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	6.0161 mL	30.0806 mL	60.1612 mL
5 mM	1.2032 mL	6.0161 mL	12.0322 mL
10 mM	0.6016 mL	3.0081 mL	6.0161 mL
50 mM	0.1203 mL	0.6016 mL	1.2032 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

Kim D S , Kim S Y , Park S H , et al. Inhibitory Effects of 4-n-Butylresorcinol on Tyrosinase Activity and Melanin Synthesis[J]. Biological & Pharmaceutical Bulletin, 2005, 28(12):2216-2219.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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