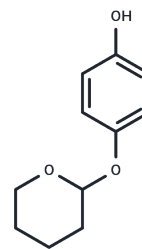


Deoxyarbutin

Chemical Properties

CAS No. :	53936-56-4
Formula:	C ₁₁ H ₁₄ O ₃
Molecular Weight:	194.23
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	DeoxyArbutin(IC ₅₀ =50 nM) inhibits tyrosinase activity reversibly.
Targets(IC ₅₀)	Apoptosis,Tyrosinase
In vivo	DeoxyArbutin (3%) demonstrates rapid and sustained skin lightening that is completely reversible within 8 weeks after halt in topical application in a hairless, pigmented guinea pig model. [1]

Solubility Information

Solubility	DMSO: 21.67 mg/mL (111.57 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 37 mg/mL (190.5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (10.3 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	5.1485 mL	25.7427 mL	51.4854 mL
5 mM	1.0297 mL	5.1485 mL	10.2971 mL
10 mM	0.5149 mL	2.5743 mL	5.1485 mL
50 mM	0.103 mL	0.5149 mL	1.0297 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

Boissy RE, et al. *Exp Dermatol*, 2005, 14(8), 601-608.

Chawla S, et al. *Br J Dermatol*, 2008, 159(6), 1267-1274.

Lin CC, et al. *Int J Mol Sci*, 2011, 12(9), 5946-5954.

Chawla S, et al. *J Drugs Dermatol*, 2012, 11(10), e28-34.

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