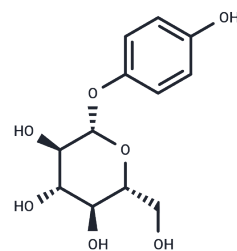


Arbutin

Chemical Properties

CAS No. :	497-76-7
Formula:	C ₁₂ H ₁₆ O ₇
Molecular Weight:	272.25
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	Arbutin (p-Arbutin)(β-Arbutin) is a glycosylated hydroquinone extracted from the bearberry plant in the genus Arctostaphylos and can inhibit tyrosinase and thus prevent the formation of melanin.
Targets(IC50)	Endogenous Metabolite, Tyrosinase

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 100 mg/mL (367.31 mM), Sonication is recommended. H ₂ O: 100 mg/mL (367.31 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: 4 mg/mL (14.69 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	3.6731 mL	18.3655 mL	36.7309 mL
5 mM	0.7346 mL	3.6731 mL	7.3462 mL
10 mM	0.3673 mL	1.8365 mL	3.6731 mL
50 mM	0.0735 mL	0.3673 mL	0.7346 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

O'Donoghue, J L. Journal of Cosmetic Dermatology, 2006, 5(3): 196-203.

Seo J, Hwang Y H, Lee A, et al. Ethanollic Extract of *Bergenia purpurascens* Exhibits Antimelanogenic Effects in B16F10 Cells through Multiple Mechanisms That Suppress Tyrosinase. Journal of Agricultural and Food Chemistry. 2024

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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