

Ascorbyl palmitate

Chemical Properties

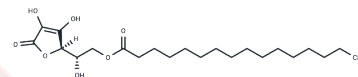
CAS No. : 137-66-6

Formula: C₂₂H₃₈O₇

Molecular Weight: 414.53

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	Ascorbyl palmitate (L-Ascorbic acid 6-hexadecanoate), an ester formed from ascorbic acid and palmitic acid, produces a fat-soluble form of vitamin C.
Targets(IC50)	Apoptosis,Bcl-2 Family,Calcium Channel,Reactive Oxygen Species,Caspase,NOD-like Receptor (NLR),Endogenous Metabolite,ROS,Sodium Channel
In vitro	L-Ascorbyl 6-palmitate is a synthetic lipophilic ascorbic acid derivative. L-Ascorbyl 6-palmitate is an effective preservative in foods and an effective dietary antitumor promoter in mice. Studies indicate that dietary L-Ascorbyl 6-palmitate is a source of tissue vitamin C in animals. Besides, dietary L-Ascorbyl 6-palmitate possesses weak antiscorbutic activity in guinea pigs and enhances vitamin C nutriture in humans. [1]

Solubility Information

Solubility	Ethanol: 77 mg/mL (185.75 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 100 mg/mL (241.24 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (6.03 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	2.4124 mL	12.0619 mL	24.1237 mL
5 mM	0.4825 mL	2.4124 mL	4.8247 mL
10 mM	0.2412 mL	1.2062 mL	2.4124 mL
50 mM	0.0482 mL	0.2412 mL	0.4825 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

Johnston CS, et al. Nutr Res, 1994, 14(10), 1465-1471.

Jonker D et al. Toxicology, 1988, 52(3), 287-295.

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