

Retinyl palmitate

Chemical Properties

CAS No. : 79-81-2

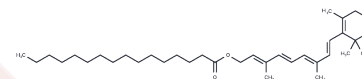
Formula: C₃₆H₆₀O₂

Molecular Weight: 524.86

Keep away from direct sunlight

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Retinyl palmitate (Vitamin A palmitate) is a naturally-occurring phenyl analogue of retinol, with potential antineoplastic and chemopreventive activities.
Targets(IC50)	Endogenous Metabolite
In vitro	The microencapsulation of vitamin A palmitate by gelatin-acacia complex is a promising method for converting an oily vitamin to solid powders for an aid to handling and ease of incorporation in preparations. [1]
In vivo	Vitamin A Palmitate (80 mg/kg daily p.o.) or (800 mg/kg once a week p.o.) dose-dependently decreases the size of papillomas in mice, the daily administration induces a somewhat higher extent of regression than the weekly application if the total doses are compared. Water miscible solutions of Vitamin A Palmitate as well as of Vitamin A acid given by the oral route elicit the same effect on papillomas. [2] Vitamin A Palmitate (A single simultaneous injection of 150 g) enhances cell-mediated immunity to sheep red blood cells(SRBC) as early as 3 days following immunization, and the enhancement persists for at least 3 weeks. [3]

Solubility Information

Solubility	DMSO: 250 mg/mL (476.32 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9053 mL	9.5263 mL	19.0527 mL
5 mM	0.3811 mL	1.9053 mL	3.8105 mL
10 mM	0.1905 mL	0.9526 mL	1.9053 mL
50 mM	0.0381 mL	0.1905 mL	0.3811 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

Junyaprasert VB, et al. Drug Dev Ind Pharm, 2001, 27(6), 561-566.

Bollag W, et al. Experientia, 1971, 27(1), 90-92.

Athanassiades TJ, et al. J Natl Cancer Inst, 1981, 67(5), 1153-1156.

Guo A, Wang B, Lyu C, et al. Consistent apparent Young's modulus of human embryonic stem cells and derived cell types stabilized by substrate stiffness regulation promotes lineage specificity maintenance[J]. Cell Regeneration. 2020, 9(1): 1-16.

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