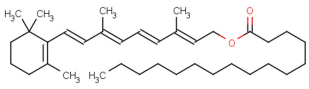
Data Sheet (Cat.No.T1059)

TargetMol
A DRUG SCREENING EXPERT

Vitamin A palmitate

Chemical Properties



CAS No.:	79-81-2
Formula:	C36H60O2
Molecular Weight:	524.86
Appearance:	Liquid
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Vitamin A Palmitate is a naturally-occurring phenyl analogue of retinol, with potential antineoplastic and chemopreventive activities.
Targets(IC_{50})	Others: None
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: 10 mM (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.905 mL	9.526 mL	19.053 mL
5 mM	0.381 mL	1.905 mL	3.811 mL
10 mM	0.191 mL	0.953 mL	1.905 mL
50 mM	0.038 mL	0.191 mL	0.381 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Junyaprasert VB, et al. Drug Dev Ind Pharm, 2001, 27(6), 561-566.
2. Bollag W, et al. Experientia, 1971, 27(1), 90-92.
3. Athanassiades TJ, et al. J Natl Cancer Inst, 1981, 67(5), 1153-1156.
4. 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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