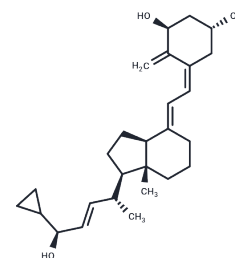


Calcipotriol

Chemical Properties

CAS No. :	112965-21-6
Formula:	C ₂₇ H ₄₀ O ₃
Molecular Weight:	412.6
Storage:	Keep away from direct sunlight, Store under nitrogen Powder: -20°C for 3 years <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Calcipotriol (MC 903) is a synthetic vitamin D3 analogue with high affinity for the vitamin D receptor.
Targets(IC50)	Vitamin
In vitro	<p>METHODS: HaCaT cells were treated with Calcipotriol (10^{-9} M, 10^{-7} M, and 10^{-5} M), and Western Blot was used to detect the expression levels of target proteins.</p> <p>RESULTS: IFN-γ-induced K17 protein expression in HaCaT cells, and Calcipotriol dose-dependently inhibited this expression. 10^{-7} M and 10^{-5} M Calcipotriol inhibited K17 protein expression by 58.10% and 70.68%, respectively. [1]</p> <p>METHODS: AsPC-1 cells were treated with 100 nM Calcipotriol, and Western Blot was used to detect the expression levels of target proteins.</p> <p>RESULTS: LRP6 protein levels were significantly decreased after Calcipotriol treatment. [2]</p>
In vivo	<p>METHODS: To study the antitumor activity of Diclofenac, Calcipotriol and Difluoromethylornithine, Diclofenac (100 μg/week), Calcipotriol (0.166 μg/week), calcipotriol (0.166 μg/week), The Difluoromethylornithine (463.3 μg/week) mixture was applied to the dorsal surface of mice once a day, five days a week for 17 weeks.</p> <p>RESULTS: Compared with the placebo group, the Diclofenac plus Calcipotriol group and Diclofenac plus DFMO plus Calcipotriol group showed significantly less weight gain. [3]</p>

Solubility Information

Solubility	DMSO: 122.5 mg/mL (296.9 mM), Sonication is recommended. Ethanol: 50 mg/mL (121.18 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 (9.69 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	2.4237 mL	12.1183 mL	24.2365 mL
5 mM	0.4847 mL	2.4237 mL	4.8473 mL
10 mM	0.2424 mL	1.2118 mL	2.4237 mL
50 mM	0.0485 mL	0.2424 mL	0.4847 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

Zhang J, et al. Effect of Calcipotriol on IFN- γ -Induced Keratin 17 Expression in Immortalized Human Epidermal Keratinocyte Cells. *Med Sci Monit.* 2017 Dec 22;23:6049-6056.

Arensman MD, et al. Calcipotriol Targets LRP6 to Inhibit Wnt Signaling in Pancreatic Cancer. *Mol Cancer Res.* 2015 Nov;13(11):1509-19.

Pommergaard HC, et al. Combination chemoprevention with diclofenac, calcipotriol and difluoromethylornithine inhibits development of non-melanoma skin cancer in mice. *Anticancer Res.* 2013 Aug;33(8):3033-9.

Reinhard Bredehorst, et al. Induction of Antigen-Specific Tolerance by Peripheral Phagocytosis. *US 20150283231 A1.*

Kaur A, et al. Nanoemulsion loaded gel for topical co-delivery of clobetasol propionate and calcipotriol in psoriasis. *Nanomedicine.* 2017 May;13(4):1473-1482.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481