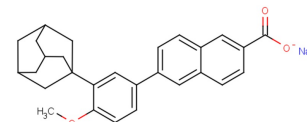


Adapalene sodium salt

Chemical Properties

CAS No.:	911110-93-5
Formula:	C ₂₈ H ₂₇ NaO ₃
Molecular Weight:	434.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Adapalene (CD 271; Differin) sodium salt is a synthetic retinoid and a Retinoic acid receptor agonist.
Targets(IC ₅₀)	Others: None
In vitro	Adapalene sodium salt is a third-generation topical retinoid primarily used in the treatment of mild-moderate acne and is also used (off-label) to treat keratosis pilaris as well as other skin conditions. Adapalene sodium salt is possibly more effective than tretinoin 0.025% gel in the treatment of acne vulgaris [1].
In vivo	Thirty-six rats of either sex were divided into six groups (two control groups, and an etodolac, indomethacin, tretinoin, and adapalene sodium salt group) of six animals each. Each group was given different drugs or chemicals. The inhibitory activities of the drugs were determined on carrageenan-induced rat paw oedema. The inhibition rate (53.48%) in the tretinoin group was found to be higher than the adapalene sodium salt and controls (P < 0.05). Adapalene sodium salt was found to have an inhibition rate of 10.28%, and when compared with the other groups, it was found to have no statistically significant anti-inflammatory activity [2].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.301 mL	11.507 mL	23.015 mL
5 mM	0.46 mL	2.301 mL	4.603 mL
10 mM	0.23 mL	1.151 mL	2.301 mL
50 mM	0.046 mL	0.23 mL	0.46 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 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Ellis CN, et al. Comparison of adapalene 0.1% solution and tretinoin 0.025% gel in the topical treatment of acne vulgaris. Br J Dermatol. 1998 Oct;139 Suppl 52:41-7.
2. Akdeniz N, et al. Anti-inflammatory effects of tretinoin (all-trans-retinoic acid) 0.1% and adapalene 0.1% in rats. Clin Exp Dermatol. 2005 Sep;30(5):570-2.

Inhibitors · Natural Compounds · Compound Libraries

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