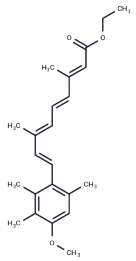
Data Sheet (Cat.No.T6831)

TargetMol

Etretinate

Chemical Properties



CAS No. : 54350-48-0

Formula: C23H30O3

Molecular Weight: 354.48

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	Etretinate (Ro 10-9359) is an oral aromatic retinoid acid which is effective in psoriasis and other dermatological syndromes. It activates retinoid receptors, causing an induction of cell differentiation, inhibition of cell proliferation, and inhibition of tissue infiltration by inflammatory cells.
Targets(IC50)	Apoptosis
In vitro	K03861 inhibits CDK2 activity by competing with binding of activating cyclins. [1]
In vivo	There is a significant decrease in mean dermal thickness ($P < 0.05$) and changes in collagen bundles in the etretinate-treated mice group for a 28-day period compared to control groups. TUNEL assay shows that the density of TUNEL-positive cells in the dermis of etretinate-treated mice for a 14-day period is significantly increased ($P < 0.05$). The ratio of procollagen α 1 (I) chain to β actin mRNA from etretinate-treated mice for a 1-day period decreased significantly compared to that of the control mice, but the ratio from etretinatetreated mice for a 14-day period increased significantly ($P < 0.05$)[2]. Etretinate reduces dermal thickness, and suppresses the appearance of skin lesions by inducting apoptosis and perhaps regulation of cytokine expression in MRL/lpr mice[3].
Cell Research	The HSC-5 cells are plated in 96-well plates at a density of 1.5×103 per 100 μL and used for experiments. Preliminary experiments are performed to determine the effective dose and cytotoxicity of etretinate. The cells are incubated for 72 h with etretinate at concentrations of 5, 10, 25 and 50 nmol/L [dissolved in saline containing 0.0001% dimethyl sulfoxide (DMSO)]. The cells are then incubated for a further 2 h with or without 200 μmol/L ALA (Sigma). Each plate is then irradiated using a metal halide lamp at doses of 10, 20, 40 and 80 J/cm2 (Only for Reference)

Solubility Information

Solubility	DMSO: 65 mg/mL (183.37 mM),Sonication is recommended. Ethanol: 65 mg/mL (183.37 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (7.05 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.821 mL	14.1052 mL	28.2103 mL
5 mM	0.5642 mL	2.821 mL	5.6421 mL
10 mM	0.2821 mL	1.4105 mL	2.821 mL
50 mM	0.0564 mL	0.2821 mL	0.5642 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

Ishida N, et al. Clin Exp Dermatol. 2009, 34(3):385-9.
Takaharu Ikeda, et al. Allergology International. 2005;54:419-425.
Ikeda T, et al. Lupus. 2005, 14(7):510-6.