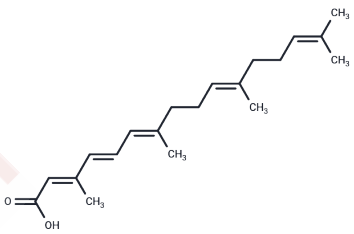
Data Sheet (Cat.No.TQ0064)

TargetMol

Peretinoin

Chemical Properties



CAS No. : 81485-25-8

Formula: C20H30O2

Molecular Weight: 302.45

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	Peretinoin (NIK333) is an oral acyclic retinoid with a vitamin A-like structure that targets retinoid nuclear receptors such as RXR and RAR.
Targets(IC50)	HCV Protease,Retinoid Receptor,Autophagy,S1P Receptor
In vitro	Peretinoin (10-40 μM; 12-72 hours) exhibits suppressed SPHK1 expression after 24 h treatment, even at 10 μM and more prominent after 72 h peretinoin treatment [1]. Peretinoin (5 μM; 24 hours) up-regulates the expression of LC3B-II and increases autophagy flux in mouse primary hepatocytes [2]. Peretinoin inhibits HCV RNA amplification and virus release by altering lipid metabolism with an EC50 of 9 μM [3].
Cell Research	Cell Line: Mouse primary hepatocytes (MPH) and the human HCC HepG2 cell line. Concentration: 5 μM. Incubation Time: 24 hours [2]

Solubility Information

Solubility	DMSO: 45 mg/mL (148.78 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: 2 mg/mL (6.61 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	3.3063 mL	16.5317 mL	33.0633 mL
5 mM	0.6613 mL	3.3063 mL	6.6127 mL
10 mM	0.3306 mL	1.6532 mL	3.3063 mL
50 mM	0.0661 mL	0.3306 mL	0.6613 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

Honda M, et al. Peretinoin, an acyclic retinoid, improves the hepatic gene signature of chronic hepatitis C following curative therapy of hepatocellular carcinoma. BMC Cancer. 2013 Apr 15;13:191.
Okada H, et al. Peretinoin, an acyclic retinoid, suppresses steatohepatitis and tumorigenesis by activating autophagy in mice fed an atherogenic high-fat diet. Oncotarget. 2017 Jun 20;8(25):39978-39993.
Funaki M, et al. Peretinoin, an acyclic retinoid, inhibits hepatocarcinogenesis by suppressing sphingosine kinase 1 expression in vitro and in vivo. Sci Rep. 2017 Dec 5;7(1):16978.