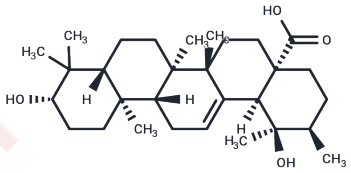
Data Sheet (Cat.No.TN2097)

TargetMol

Pomolic acid

Chemical Properties



CAS No. : 13849-91-7

Formula: C30H48O4

Molecular Weight: 472.7

Storage: Keep away from direct sunlight
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	Pomolic acid has anti-cancer, anti-inflammatory and apoptotic activities, it can induce apoptosis in SK-OV-3 cells, which is mediated by the mitochondrial-mediated intrinsic and death receptor-induced extrinsic pathways.
Targets(IC50)	Apoptosis,Caspase,HIV Protease,AMPK
In vitro	Oleanolic acid (1) was identified as an anti-HIV principle from several plants, including Rosa woodsii (leaves), Prosopis glandulosa (leaves and twigs), Phoradendron juniperinum (whole plant), Syzygium claviflorum (leaves), Hyptis capitata (whole plant), and Ternstromia gymnanthera (aerial part). It inhibited HIV-1 replication in acutely infected H9 cells with an EC50 value of 1.7 microg/mL, and inhibited H9 cell growth with an IC50 value of 21.8 microg/mL [therapeutic index (T. I.) 12.8]. Pomolic acid, isolated from R. woodsii and H. capitata, was also identified as an anti-HIV agent (EC50 1.4 microg/mL, T. I. 16.6). Although ursolic acid did show anti-HIV activity (EC50 2.0 microg/mL), it was slightly toxic (IC50 6.5 microg/mL, T. I. 3.3). A new triterpene (11) was also isolated from the CHCl3-soluble fraction of R. woodsii, though it showed no anti-HIV activity. The structure of 11 was determined to be 1beta-hydroxy-2-oxoPomolic acid by spectral examination. Based on these results, we examined the anti-HIV activity of oleanolic acid- or Pomolic acid-related triterpenes isolated from several plants. In addition, we previously demonstrated that derivatives of betulinic acid, isolated from the leaves of S. claviflorum as an anti-HIV principle, exhibited extremely potent anti-HIV activity[1]

Solubility Information

Solubility	DMSO: 60 mg/mL (126.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (5.29 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	2.1155 mL	10.5775 mL	21.1551 mL
5 mM	0.4231 mL	2.1155 mL	4.231 mL
10 mM	0.2116 mL	1.0578 mL	2.1155 mL
50 mM	0.0423 mL	0.2116 mL	0.4231 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

Anti-AIDS agents. 30. Anti-HIV activity of oleanolic acid, pomolic acid, and structurally related triterpenoids.J Nat Prod. 1998 Sep;61(9):1090-5.