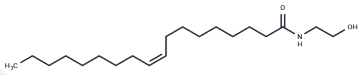
Data Sheet (Cat.No.T12296)

TargetMol

Oleoylethanolamide

Chemical Properties



CAS No. : 111-58-0

Formula: C20H39NO2

Molecular Weight: 325.53

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	Oleoylethanolamide (N-Oleoylethanolamide) is a high affinity endogenous agonist of PPAR-α.
Targets(IC50)	Endogenous Metabolite,PPAR
In vitro	In vitro studies showed that OEA inhibited transforming growth factor β1-stimulated HSCs activation through suppressing Smad2/3 phosphorylation, α-SMA expression and myofibroblast transformation.
In vivo	Treatment with OEA (5 mg/kg/day, intraperitoneal injection, i.p.) significantly attenuated the progress of liver fibrosis in both two experimental animal models by blocking the activation of hepatic stellate cells (HSCs).?Gene expression analysis of hepatic tissues indicated that OEA inhibited the expression of α-smooth muscle action (α-SMA) and collagen matrix, fibrosis markers, and genes involved in inflammation and extracellular matrix remodeling.

Solubility Information

Solubility	H2O: < 0.1 mg/mL (insoluble), DMSO: 250 mg/mL (767.98 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 (6.14 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	3.0719 mL	15.3596 mL	30.7191 mL
5 mM	0.6144 mL	3.0719 mL	6.1438 mL
10 mM	0.3072 mL	1.536 mL	3.0719 mL
50 mM	0.0614 mL	0.3072 mL	0.6144 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

Chen L, et al. Oleoylethanolamide, an endogenous PPAR-α ligand, attenuates liver fibrosis targeting hepatic stellate cells. Oncotarget. 2015 Dec 15;6(40):42530-40