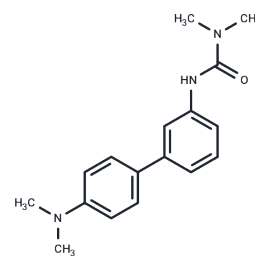


## Atglistatin

## Chemical Properties

CAS No. :	1469924-27-3
Formula:	C <sub>17</sub> H <sub>21</sub> N <sub>3</sub> O
Molecular Weight:	283.37
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	Atglistatin is a highly effective, specific and competitive ATGL inhibitor with an IC <sub>50</sub> of ~0.7 μM for inhibition of lipolysis in vitro, and no toxicity when the concentration up to 50 μM.
Targets(IC <sub>50</sub> )	Lipase
In vitro	Atglistatin inhibits ATGL, consequently suppressing lipid breakdown in both cellular and organ cultures without exhibiting cytotoxic effects at concentrations up to 50 μM.
In vivo	Atglistatin, administered orally (p.o.), reduces fatty acids (FA) and glycerol by up to 50% and 62% respectively, in a dose-dependent manner, and also significantly reduces triglyceride (TG) levels in the plasma by 43%. When administered via intraperitoneal injection (i.p.), Atglistatin inhibits lipolysis in a dose- and time-dependent manner. Moreover, Atglistatin exhibits significant differences in tissue distribution, primarily accumulating in the liver and adipose tissue.
Kinase Assay	Determination of lipase activity: For determination of lipase activity, lysates are incubated with a substrate containing radiolabeled [9,10- <sup>3</sup> H(N)]-triolein. Subsequently, FA are extracted and quantitated by liquid scintillation counting. Data are presented as mean S.D. of triplicate determinations and representative for at least three independent experiments.
Cell Research	For MTT-based in vitro viability assays, cells are seeded in 96-well plates and cultured under standard conditions for 24 h. The next day, cells are pretreated with different concentrations of Atglistatin dissolved in DMSO or Cisplatin dissolved in DMF as positive control for 2 h. Medium is replaced by an identical fresh medium and incubated again for the indicated time points. Thereafter, cells are incubated for 3 h with 100 μL Thiazolyl Blue Tetrazolium Bromide (MTT). The resulting violet formazan crystals are dissolved by adding 100 μL of MTT solubilization solution (0.1% NP-40, 4 mM HCl and anhydrous isopropanol). After complete dissolution of the formazan product, absorbance is measured at 595 nm using 690 nm as reference wavelength.(Only for Reference)

## Solubility Information

Solubility	H <sub>2</sub> O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 100 mg/mL (352.9 mM),Sonication is recommended.
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## A DRUG SCREENING EXPERT

Solubility	Ethanol: 4 mg/mL (14.12 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: 4 mg/mL (14.12 mM), Sonication is recommended. <i>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.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.529 mL	17.6448 mL	35.2896 mL
5 mM	0.7058 mL	3.529 mL	7.0579 mL
10 mM	0.3529 mL	1.7645 mL	3.529 mL
50 mM	0.0706 mL	0.3529 mL	0.7058 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

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Li M, Yang J, Ye C, et al. Integrated Metabolomics and Transcriptomics Analyses Reveal Metabolic Landscape in Neuronal Cells during JEV Infection. Virologica Sinica. 2021: 1-12.

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