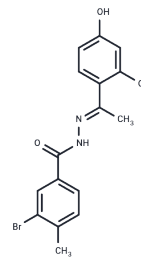


mTOR inhibitor-1

Chemical Properties

CAS No. :	468747-17-3
Formula:	C ₁₆ H ₁₅ BrN ₂ O ₃
Molecular Weight:	363.21
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	C-4 is a potential ATP-competitive inhibitor of mTOR. C-4 could inhibit cell growth and proliferation.
Targets(IC50)	Autophagy,mTOR
In vitro	The addition of C-4 (mTOR inhibitor-1, 0~12.8 µg/ml) directly decreases the level of activated mTOR (p-mTORser2448) which is phosphorylated at Ser2448. The proliferation of A549 cells is strongly inhibited by C-4, and the inhibitory effect is time- and dose314 dependent. The IC50 of C-4 at 24 h is calculated as 3.176 µM.

Solubility Information

Solubility	DMSO: 70 mg/mL (192.73 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 (5.51 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	2.7532 mL	13.7661 mL	27.5323 mL
5 mM	0.5506 mL	2.7532 mL	5.5065 mL
10 mM	0.2753 mL	1.3766 mL	2.7532 mL
50 mM	0.0551 mL	0.2753 mL	0.5506 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

Liu J, et al. In Silico Discovery of a Small Molecule Suppressing Lung Carcinoma A549 Cells Proliferation and Inducing Autophagy via mTOR Pathway Inhibition. Mol Pharm. 2018 Nov 5;15(11):5427-5436.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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