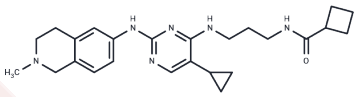
Data Sheet (Cat.No.T6899)

TargetMol

MRT68921

Chemical Properties



CAS No. :	1190379-70-4
Formula:	C25H34N6O
Molecular Weight:	434.58
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	MRT68921 is a potent and dual autophagy kinase ULK1/2 inhibitor with IC50 of 2.9 nM and 1.1 nM, respectively.
Targets(IC50)	Autophagy
In vitro	MRT68921 specifically disrupts autophagosome maturation and thus blocks autophagic flux through ULK1 inhibition. [1]
Kinase Assay	Kinase assays are carried out in 50 mM Tris-HCl, pH 7.4, 10 mM magnesium acetate, 0.1 mM EGTA, and 0.1% β-mercaptoethanol, containing 30 μM cold ATP, and 0.5 μCi of [γ-32P]ATP for 5 min at 25 °C. Prior to ATP addition, reaction mixes are pre-warmed to 25 °C for 5 min. Reactions are stopped by the addition of sample buffer, followed by SDS-PAGE, transfer to nitrocellulose, and analysis by autoradiography and immunoblot[1].
Cell Research	MEFs and 293T cells are grown in DMEM, supplemented with 10% fetal bovine serum and penicillin/streptomycin, and cultured at 37°C, 5% CO2. For induction of autophagy, cells are typically grown to 75% confluency, ished twice, and incubated in Earle's balanced salt solution (EBSS) for 1 h (or complete medium as a control). MRT67307 (10 μM), MRT68921 (1 μM), AZD8055 (1 μM), or bafilomycin A1 (50 nM) is included[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 10 mg/mL (23.01 mM),Heating is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.3 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	2.3011 mL	11.5054 mL	23.0107 mL
5 mM	0.4602 mL	2.3011 mL	4.6021 mL
10 mM	0.2301 mL	1.1505 mL	2.3011 mL
50 mM	0.046 mL	0.2301 mL	0.4602 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

Petherick KJ, et al. J Biol Chem. 2015, 290(18), 11376-11383.