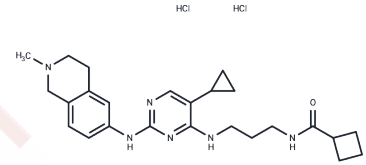


MRT68921 dihydrochloride

Chemical Properties

CAS No. :	2080306-21-2
Formula:	C ₂₅ H ₃₆ Cl ₂ N ₆ O
Molecular Weight:	507.499
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 dihydrochloride is a potent ULK1 and ULK2 inhibitor (IC ₅₀ of 2.9 nM and 1.1 nM, respectively).
Targets(IC ₅₀)	Autophagy
In vitro	MRT68921 inhibits ULK1 and ULK2 in vitro and block autophagy in cells. MRT68921 is the most potent inhibitor of both ULK1 and ULK2, with greater than a 15-fold reduction in the IC ₅₀ for ULK1 (2.9 nM) and greater than a 30-fold reduction for ULK2 (1.1 nM). Autophagy-inhibiting capacity of the compounds is specifically through ULK1. ULK1 inhibition results in accumulation of stalled early autophagosomal structures, indicating a role for ULK1 in the maturation of autophagosomes as well as initiation[1]

Solubility Information

Solubility	H ₂ O: 33.33 mg/mL (65.68 mM), Sonication is recommended. DMSO: 2 mg/mL (3.94 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9704 mL	9.8522 mL	19.7044 mL
5 mM	0.3941 mL	1.9704 mL	3.9409 mL
10 mM	0.197 mL	0.9852 mL	1.9704 mL
50 mM	0.0394 mL	0.197 mL	0.3941 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. Pharmacological inhibition of ULK1 kinase blocks mammalian target of rapamycin (mTOR)-dependent autophagy. J Biol Chem. 2015 May 1;290(18):11376-83.

Chen Y , Xie X , Wang C , et al. Dual Targeting of NUA1 and ULK1 Using the Multitargeted Inhibitor MRT68921 Exerts Potent Antitumor Activities[J]. SSRN Electronic Journal, 2019.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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