Data Sheet (Cat.No.T12819)

TargetMol

S130

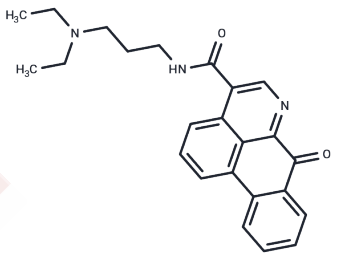
Chemical Properties

CAS No. : 1160852-22-1

Formula: C24H25N3O2

Molecular Weight: 387.47

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	S130 is a high affinity, selectiveATG4B (a major cysteine protease) inhibitor (IC50 of 3.24 μM).It suppresses autophagy flux.
Targets(IC50)	Apoptosis,Autophagy,Cysteine Protease
In vitro	S130 suppresses autophagy and activates apoptosis by inhibiting ATG4B, leading to enhanced cytotoxicity. S130 (0-25 μM; 48 hours) induces cell death through ATG4B inhibition at doses higher than 6.3 μM, without causing necroptosis. Nutrient deprivation enhances S130-induced cytotoxicity. S130 (0-10 μM; 24 hours) suppresses approximately 79% of full-length LC3-GST cleavage at 10 μM, while no substrates were processed in ATG4B KO cells. S130 exhibits significant inhibitory effects on ATG4B.
In vivo	Tumor growth suppressed by S130 (20 mg/kg; i.p.; daily; 3 weeks), S130 shows an efficient in vivo antitumor effect with a sound safety on vital organs.

Solubility Information

Solubility	DMSO: 125 mg/mL (322.61 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: 3.3 mg/mL (8.52 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	2.5808 mL	12.9042 mL	25.8084 mL
5 mM	0.5162 mL	2.5808 mL	5.1617 mL
10 mM	0.2581 mL	1.2904 mL	2.5808 mL
50 mM	0.0516 mL	0.2581 mL	0.5162 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

Fu Y, et al. Discovery of a small molecule targeting autophagy via ATG4B inhibition and cell death of colorectal cancer cells in vitro and in vivo. Autophagy. 2018 Sep 20:1-17.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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