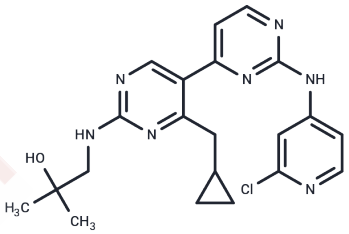
Data Sheet (Cat.No.T7015)

TargetMol

Vps34-IN-1

Chemical Properties



CAS No. : 1383716-33-3

Formula: C21H24ClN7O

Molecular Weight: 425.91

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	Vps34-IN-1 (VPS34-IN1) is a potent and highly selective Vps34 inhibitor with IC50 of 25 nM in vitro, which does not significantly inhibit the isoforms of class I as well as class II PI3Ks.
Targets(IC50)	Autophagy,PI3K
In vitro	Administration of VPS34-IN1 to cells induces a rapid dose-dependent dispersal of a specific PtdIns(3)P-binding probe from endosome membranes, within 1min, without affecting the ability of class I PI3K to regulate Akt. It can also induce a rapid ~50-60% loss of SGK3 phosphorylation within 1min. VPS34-IN1 has no inhibition to the SGK2 isoform that does not possess a PtdIns(3)P-binding PX domain[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 79 mg/mL (185.49 mM),Sonication is recommended. DMSO: 255 mg/mL (598.72 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 (4.7 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	2.3479 mL	11.7396 mL	23.4791 mL
5 mM	0.4696 mL	2.3479 mL	4.6958 mL
10 mM	0.2348 mL	1.174 mL	2.3479 mL
50 mM	0.047 mL	0.2348 mL	0.4696 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

Bago R, et al. Biochem J. 2014 Nov 1;463(3):413-27.
Zhang H, Cui Z, Cheng D, et al. RNF186 regulates EFNB1 (ephrin B1)-EPHB2-induced autophagy in the colonic epithelial cells for the maintenance of intestinal homeostasis. Autophagy. 2021 Oct;17(10):3030-3047
Gao Y, Xiong J, Chu Q Z, et al. PDZD8-mediated lipid transfer at contacts between the ER and late endosomes/lysosomes is required for neurite outgrowth[J]. Journal of Cell Science. 2021, 135(5): jcs255026.
Zhang H, Cui Z, Cheng D, et al. RNF186 regulates EFNB1 (ephrin B1)-EPHB2-induced autophagy in the colonic epithelial cells for the maintenance of intestinal homeostasis[J]. Autophagy . 2020