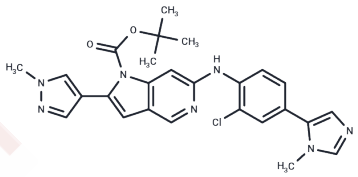
Data Sheet (Cat.No.T14906)

TargetMol

CCT251455

Chemical Properties



CAS No. : 1400284-80-1

Formula: C26H26ClN7O2

Molecular Weight: 503.98

Storage: Keep away from moisture,Store at low temperature
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	CCT251455, the mitotic kinase monopolar spindle 1 (MPS1/TTK) inhibitor, is a potent (IC50=3 nM) and specific chemical tool.
Targets(IC50)	Kinesin
In vitro	CCT251455 is a potent MPS1 inhibitor that exhibits high selectivity across a broad kinase profiling panel and excellent translation of in vitro biochemical potency to cellular potency compared to the isolated MPS1 enzyme (P-MPS1 IC50 of 0.04 μM and HCT116 GI50 of 0.16 μM).[1]
In vivo	Methods: Mice bearing HCT116 human colon cancer xenografts were treated with CCT251455 (50, 75, and 100 mg/kg, orally, twice daily). Results: CCT251455 was well tolerated at all doses and inhibited MPS1 activity in mice; the observed reduction in phospho-histone H3 inhibition was consistent with the reduction in total plasma and tumor tissue exposure measured in the same experiment. [1]

Solubility Information

Solubility	DMSO: 100 mg/mL (198.42 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 (6.55 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	1.9842 mL	9.921 mL	19.8421 mL
5 mM	0.3968 mL	1.9842 mL	3.9684 mL
10 mM	0.1984 mL	0.9921 mL	1.9842 mL
50 mM	0.0397 mL	0.1984 mL	0.3968 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

Naud S, et al. Structure-based design of orally bioavailable 1H-pyrrolo[3,2-c]pyridine inhibitors of mitotic kinase monopolar spindle 1 (MPS1). J Med Chem. 2013 Dec 27;56(24):10045-65.
Innocenti P, et al. Rapid Discovery of Pyrido[3,4-d]pyrimidine Inhibitors of Monopolar Spindle Kinase 1 (MPS1) Using a Structure-Based Hybridization Approach. J Med Chem. 2016 Apr 28;59(8):3671-88.