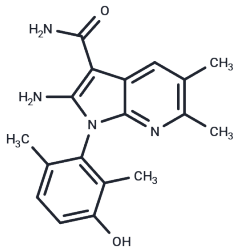
Data Sheet (Cat.No.T60889)

RP-6306

Chemical Properties



CAS No. : 2719793-90-3

Formula: C18H20N4O2

Molecular Weight: 324.38

Storage: Keep away from direct sunlight,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	Lunresertib (RP-6306) is a potent, selective, and orally active PKMYT1 inhibitor with an IC50 of 14 nM. Lunresertib (RP-6306) inhibits the growth of CCNE1-amplified tumor cells in several preclinical xenograft models.
Targets(IC50)	Wee1
In vitro	**METHODS**: HCC1569 breast cancer cell line was treated with lunresertib (RP-6306) (63, 125, 250, 500 nM) to assess whether PKMYT1 inhibition leads to DNA damage in CCNE1-high cells by monitoring γH2AX levels using quantitative image-based flow cytometry. **RESULTS** Treatment with lunresertib (RP-6306) induced pan-γH2AX in the HCC1569 breast cancer cell line, suggesting that tumor-derived CCNE1 amplification also renders cells susceptible to DNA damage induction following PKMYT1 inhibition. [1]
In vivo	**METHODS**: lunresertib (RP-6306) (3, 10 and 60 mg/kg, oral, daily) was used to treat CCNE1-amplified ovary xenograft model (OVCAR3) mice, and tumor growth in the mice was observed. **RESULTS** lunresertib (RP-6306) inhibited tumor growth in OVCAR3 mice in a statistically significant concentration-dependent manner. [2]

Solubility Information

Solubility	DMSO: 67.3 mg/mL (207.47 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 (6.17 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	3.0828 mL	15.414 mL	30.828 mL
5 mM	0.6166 mL	3.0828 mL	6.1656 mL
10 mM	0.3083 mL	1.5414 mL	3.0828 mL
50 mM	0.0617 mL	0.3083 mL	0.6166 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

David Gallo, et al. CCNE1 amplification is synthetic lethal with PKMYT1 kinase inhibition. Nature. 2022 Apr;604 (7907):749-756.

Szychowski J, et al. Discovery of an Orally Bioavailable and Selective PKMYT1 Inhibitor, RP-6306. J Med Chem. 2022 Aug 11;65(15):10251-10284.