

CB-6644

Chemical Properties

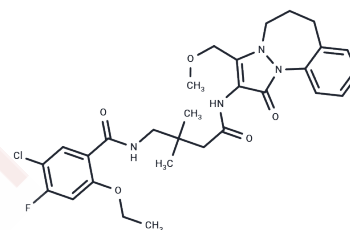
CAS No. : 2316817-88-4

Formula: C₂₉H₃₄ClFN₄O₅

Molecular Weight: 573.06

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	CB-6644 is a small molecule inhibitor of the ATPase activity of the RUVBL1/2 complex. It specifically interacts with RUVBL1/2 in cancer cells and blocks the ATPase activity of RUVBL1/2 with a half-maximal inhibitory concentration (IC ₅₀) of 15 nM[1].
Targets(IC ₅₀)	Others,DNA/RNA Synthesis
In vitro	METHODS: HCT116, NCI-1975, and HT29 cells were treated with CB-6644 (100nM-500nM) and allowed to form colonies within 3 weeks. RESULTS CB-6644 was able to effectively kill cells with an EC ₅₀ range of 41 ~ 785 nM. [1]
In vivo	METHODS: Plasma concentrations and tumor growth were measured in nude female mice or after a single intravenous dose (0.5 mg/kg) of CB-6644. RESULTS CB-6644 can significantly inhibit tumor growth and has little effect on body weight. [1]

Solubility Information

Solubility	DMSO: 49 mg/mL (85.51 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: 1 mg/mL (1.75 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.745 mL	8.7251 mL	17.4502 mL
5 mM	0.349 mL	1.745 mL	3.490 mL
10 mM	0.1745 mL	0.8725 mL	1.745 mL
50 mM	0.0349 mL	0.1745 mL	0.349 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

Assimon VA, et al. CB-6644 Is a Selective Inhibitor of the RUVBL1/2 Complex with Anticancer Activity. ACS Chem Biol. 2019 Feb 15;14(2):236-244.

Sun F, et al. RUVBL1 promotes enzalutamide resistance of prostate tumors through the PLXNA1-CRAF-MAPK pathway. Oncogene. 2022 Jun;41(23):3239-3250.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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