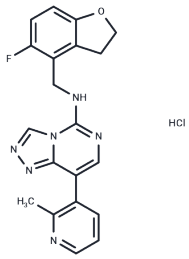
Data Sheet (Cat.No.T9681)

TargetMol

MAK-683 hydrochloride

Chemical Properties



CAS No. :	2170606-94-5
Formula:	C20H18ClFN6O
Molecular Weight:	412.85
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	MAK683 hydrochloride embryonic ectodermal development (EED) inhibitor, also a potent PRC2 inhibitor, blocked cancer cell proliferation (IC50=1.014nM), with IC50 values of 59, 26, and 89 nM measured in EED Alphascreen, ELISA, and LC-MS assays, respectively.
Targets(IC50)	Histone Methyltransferase
In vitro	**METHODS**: Human cervical cancer HeLa cells were treated with MAK683 (1.5-370nM) for 72 hours, and H3K27me3 protein expression was observed by Western Blot experiment. **RESULTS** MAK683 dose-dependently inhibited H3K27me3 protein expression in HeLa, with an IC50 of approximately 1.014nM. [1]
In vivo	**METHODS**: To detect anti-tumor activity in vivo, WT G401 or p16 knockout cells were washed and resuspended in cold PBS. The tumor cell mixture was then injected subcutaneously into female Balb/c nude mice. When the tumor volume reached about 60-350 mm, The mice were numbered and randomly assigned to the 100 mg/kg MAK683 treatment group, which was administered at 8 a.m. The mouse body weight and tumor volume were measured and recorded every 3 days. **RESULTS** MAK683 treatment significantly inhibited the proliferation of female mouse G401 WT or p16 KO cells. [1]

Solubility Information

Solubility	DMSO: 10 mg/mL (24.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 0.46 mg/mL (1.11 mM),Solution. *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	2.4222 mL	12.1109 mL	24.2219 mL
5 mM	0.4844 mL	2.4222 mL	4.8444 mL
10 mM	0.2422 mL	1.2111 mL	2.4222 mL
50 mM	0.0484 mL	0.2422 mL	0.4844 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

Chu L, et al. Induction of senescence-associated secretory phenotype underlies the therapeutic efficacy of PRC2 inhibition in cancer. Cell Death Dis. 2022 Feb 15;13(2):155.