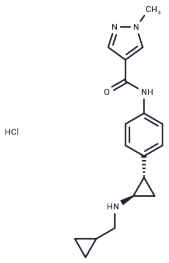
Data Sheet (Cat.No.T13055)

TargetMol

T-3775440 hydrochloride

Chemical Properties



CAS No. : 1422535-52-1

Formula: C18H23ClN4O

Molecular Weight: 346.85

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	T-3775440 hydrochloride is an irreversible inhibitor of lysine-specific histone demethylase (LSD1)(IC50 : 2.1 nM).
Targets(IC50)	Histone Demethylase
In vitro	T-3775440, a novel irreversible LSD1 inhibitor. Cell growth analysis of leukemia cell lines revealed that acute erythroid leukemia (AEL) and acute megakaryoblastic leukemia cells (AMKL) were highly sensitive to this compound. T-3775440 treatment enforced transdifferentiation of erythroid/megakaryocytic lineages into granulomonocytic-like lineage cells. Mechanistically, T-3775440 disrupted the interaction between LSD1 and growth factor-independent 1B (GFI1B), a transcription factor critical for the differentiation processes of erythroid and megakaryocytic lineage cells. Knockdown of LSD1 and GFI1B recapitulated T-3775440-induced transdifferentiation and cell growth suppression, highlighting the significance of LSD1-GFI1B axis inhibition with regard to the anti-AML effects of T-3775440[1].
In vivo	T-3775440 exhibited significant antitumor efficacy in AEL and AMKL xenograft models[1].

Solubility Information

Solubility	DMSO: 30.18 mg/mL (87.01 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 (5.77 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	2.8831 mL	14.4155 mL	28.8309 mL
5 mM	0.5766 mL	2.8831 mL	5.7662 mL
10 mM	0.2883 mL	1.4415 mL	2.8831 mL
50 mM	0.0577 mL	0.2883 mL	0.5766 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

Ishikawa Y, et al. A Novel LSD1 Inhibitor T-3775440 Disrupts GFI1B-Containing Complex Leading to Transdifferentiation and Impaired Growth of AML Cells. Mol Cancer Ther. 2017 Feb;16(2):273-284.
Matsumoto, Satoru, Ishikawa,et al. LSD1 Inhibitor T-3775440 Inhibits SCLC Cell Proliferation by Disrupting LSD1 Interactions with SNAG Domain Proteins INSM1 and GFI1B[J]. Cancer Research the Official Organ of the American Association for Cancer Research Inc, 2017.