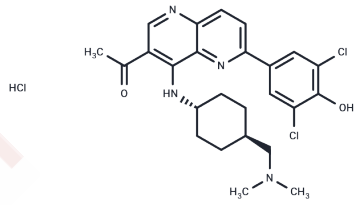
Data Sheet (Cat.No.T21559)

TargetMol

OTSSP167 hydrochloride

Chemical Properties



CAS No. : 1431698-10-0

Formula: C25H29Cl3N4O2

Molecular Weight: 523.88

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	OTSSP167 hydrochloride is a highly potent inhibitor of MELK(IC50 : 0.41 nM).
Targets(IC50)	MELK
In vitro	OTSSP167 is a highly potent MELK inhibitor with IC of 0.41 nM.?OTSSP167 inhibited the phosphorylation of PSMA1 (proteasome subunit alpha type 1) and DBNL (drebrin-like), which we identified as novel MELK substrates and are important for stem-cell characteristics and invasiveness.?The compound suppressed mammosphere formation of breast cancer cells and exhibited significant tumor growth suppression in xenograft studies using breast, lung, prostate, and pancreas cancer cell lines in mice by both intravenous and oral administration.?This MELK inhibitor should be a promising compound possibly to suppress the growth of tumor-initiating cells and be applied for treatment of a wide range of human cancer.

Solubility Information

Solubility	DMSO: 33 mg/mL (62.99 mM),Sonication is recommended. H2O: 7.14 mg/mL (13.63 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: 2.5 mg/mL (4.77 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	1.9088 mL	9.5442 mL	19.0883 mL
5 mM	0.3818 mL	1.9088 mL	3.8177 mL
10 mM	0.1909 mL	0.9544 mL	1.9088 mL
50 mM	0.0382 mL	0.1909 mL	0.3818 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

Chung S, Suzuki H, Miyamoto T, et al. Development of an orally-administrative MELK-targeting inhibitor that suppresses the growth of various types of human cancer. Oncotarget. 2012 Dec 21.
Jurmeister S, et al. Identification of potential therapeutic targets in prostate cancer through a cross-species approach. EMBO Mol Med. 2018 Feb 5. pii: e8274.

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