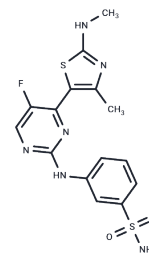


CDKI-73

Chemical Properties

CAS No. :	1421693-22-2
Formula:	C ₁₅ H ₁₅ FN ₆ O ₂ S ₂
Molecular Weight:	394.45
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	CDKI-73 is a potent CDK9 inhibitor (K _i : 4 nM). It shows selective toxicity to CLL cells (LD ₅₀ =80 nM) versus normal B cell and normal CD34+ cell(LD ₅₀ >20 μM).The inhibition of CDK9 induces apoptosis and potentiates the effect of cisplatin.
Targets(IC50)	Apoptosis,CDK
In vitro	CDKI-73, one of the most potent CDK9 inhibitors, against a panel of AML cell lines and samples derived from 97 patients.?CDKI-73 induced cancer cells undergoing apoptosis through transcriptional downregulation of anti-apoptotic proteins Bcl-2, Mcl-1 and XIAP by majorly targeting CDK9[3].
In vivo	CDKI-73 exhibited a favorable pharmacokinetic profile with oral bioavailability of F = 56% following a single intravenous bolus dose at 2 mg/kg and an oral dose at 10 mg/kg in mice [1].

Solubility Information

Solubility	DMSO: 72.5 mg/mL (183.8 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: 7.25 mg/mL (18.38 mM),Solution. 10% DMSO+90% Saline: < 7.25 mg/mL (18.38 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (6.34 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	2.5352 mL	12.6759 mL	25.3518 mL
5 mM	0.507 mL	2.5352 mL	5.0704 mL
10 mM	0.2535 mL	1.2676 mL	2.5352 mL
50 mM	0.0507 mL	0.2535 mL	0.507 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

Xie S, et al. Antitumor action of CDK inhibitor LS-007 as a single agent and in combination with ABT-199 against human acute leukemia cells. *Acta Pharmacol Sin.* 2016 Nov;37(11):1481-1489.

Lam F, et al. Targeting RNA transcription and translation in ovarian cancer cells with pharmacological inhibitor CDKI-73. *Oncotarget.* 2014 Sep 15;5(17):7691-704.

CDKI-73: an orally bioavailable and highly efficacious CDK9 inhibitor against acute myeloid leukemia.[J]. *Investigational new drugs*, 2018.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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