

AZD4573

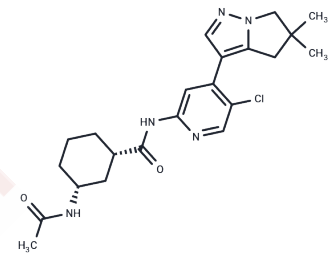
## Chemical Properties

CAS No. : 2057509-72-3

Formula: C<sub>22</sub>H<sub>28</sub>ClN<sub>5</sub>O<sub>2</sub>

Molecular Weight: 429.94

Storage: Store at low temperature, Keep away from direct sunlight  
 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	AZD4573 is an effective and selective CDK9 inhibitor (IC <sub>50</sub> : <4 nM). It enables transient target engagement for the treatment of hematologic malignancies.
Targets(IC <sub>50</sub> )	CDK
In vitro	Short-term administration of AZD4573 induced a swift, dose- and time-dependent reduction in cellular pSer2-RNAPII levels, which in turn activated caspase 3, leading to apoptosis across a wide spectrum of hematological cancer cell lines. Notably, caspase activation exhibited an EC <sub>50</sub> of 13.7 nM in the acute myeloid leukemia model MV4-11.
In vivo	AZD4573 demonstrates a short half-life (<1 hour) in multiple species (dog, rat, monkey) and possesses good solubility for intravenous administration.

## Solubility Information

Solubility	DMSO: 118.75 mg/mL (276.2 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: 4 mg/mL (9.3 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

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	1mg	5mg	10mg
1 mM	2.3259 mL	11.6295 mL	23.2591 mL
5 mM	0.4652 mL	2.3259 mL	4.6518 mL
10 mM	0.2326 mL	1.163 mL	2.3259 mL
50 mM	0.0465 mL	0.2326 mL	0.4652 mL

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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

Bernard Barlaam, et al. Abstract 1650: Discovery of AZD4573, a potent and selective inhibitor of CDK9 that enables transient target engagement for the treatment of hematologic malignancies. Cancer Research. July 2018. 78(13): Supplement.

Yang N, Fan Z, Sun S, et al. Discovery of highly potent and selective KRASG12C degraders by VHL-recruiting PROTACs for the treatment of tumors with KRASG12C-Mutation. European Journal of Medicinal Chemistry. 2023: 115857.

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