# AZD4573

**Cat. No.:** HY-112088

**CAS No.:** 2057509-72-3

**Molecular Formula:** $C_{22}H_{28}ClN_5O_2$

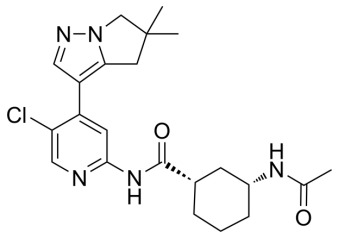
**Molecular Weight:** 429.94

**Target:** CDK

**Pathway:** Cell Cycle/DNA Damage

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| | 4°C | 2 years |
| In solvent | -80°C | 2 years |
| | -20°C | 1 year |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 50 mg/mL (116.30 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 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 | 1.1630 mL | 2.3259 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.84 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

AZD4573 is a potent and highly selective CDK9 inhibitor ($IC_{50}$ of <4 nM) that enables transient target engagement for the treatment of hematologic malignancies[1].

**$IC_{50}$ & Target**

CDK9
4 nM ($IC_{50}$)

**In Vitro**

Short-term treatment with AZD4573 led to a rapid dose- and time-dependent decrease in cellular pSer2-RNAPII, resulting in

| | |
|---|---|
| | activation of caspase 3 and cell apoptosis in a broad range of haematological cancer cell lines (e.g. caspase activation $EC_{50}$ 13.7 nM in an acute myeloid leukemia model MV4-11) [1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |
| **In Vivo** | AZD4573 exhibits a short half-life in multiple species (less than one hour in rat, dog and monkey) and good solubility for intravenous administration[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## CUSTOMER VALIDATION

- Acta Pharm Sin B. 2023 May 26.
- Cancer Res. 2023 Oct 6.
- Cell Rep. 2020 Apr 7;31(1):107485.
- Int J Mol Sci. 2022 Feb 24;23(5):2493.
- PLoS One. 2020 Jun 19;15(6):e0232068.

See more customer validations on www.MedChemExpress.com

## REFERENCES

[1]. 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.



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