AZD4573

Cat. No.: HY-112088

CAS No.: 2057509-72-3

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

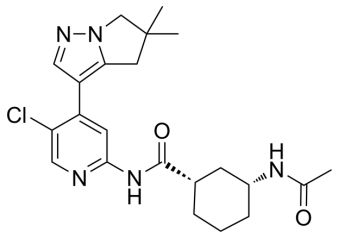
Molecular Weight: 429.94

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]. 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]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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