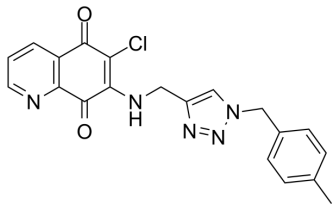
M2N12

Cat. No.:	HY-128769
CAS No.:	2376577-06-7
Molecular Formula:	$C_{20}H_{16}ClN_5O_2$
Molecular Weight:	393.83
Target:	CDK
Pathway:	Cell Cycle/DNA Damage
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 11.11 mg/mL (28.21 mM; ultrasonic and warming and heat to 67°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5392 mL	12.6958 mL	25.3917 mL
	5 mM	0.5078 mL	2.5392 mL	5.0783 mL
	10 mM	0.2539 mL	1.2696 mL	2.5392 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: 1.11 mg/mL (2.82 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

M2N12 is a potent and highly selective cell division cycle 25C protein phosphatase (Cdc25C) inhibitor with an IC_{50} value of 0.09 μM. M2N12 also has promising activity against Cdc25A and Cdc25B with IC_{50} values of 0.53 μM and 1.39 μM, respectively. M2N12 has anti-tumor activity and can be used for cancer research[1].

In Vitro

M2N12 (0-20 μM; 72 hours) has cytotoxic activity against five tumor cell lines and a normal cell line including A-549, MDA-MB-231, KB, KB-VIN, MCF-7 and HBE (IC_{50}=3.92 μM, 4.63 μM, 5.05 μM, 6.81 μM, 4.71 μM and 6.00 μM, respectively)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jing L, et al. Identification of highly potent and selective Cdc25 protein phosphatases inhibitors from miniaturization click-chemistry-based combinatorial libraries. Eur J Med Chem. 2019 Sep 14;183:111696.

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