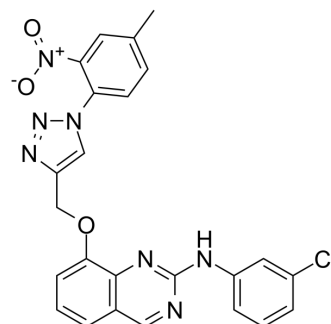


## DB18

<b>Cat. No.:</b>	HY-131978		
<b>CAS No.:</b>	2587177-94-2		
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>18</sub> ClN <sub>7</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	487.9		
<b>Target:</b>	CDK		
<b>Pathway:</b>	Cell Cycle/DNA Damage		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



## SOLVENT & SOLUBILITY

### In Vitro

DMSO : 50 mg/mL (102.48 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.0496 mL	10.2480 mL	20.4960 mL
	5 mM	0.4099 mL	2.0496 mL	4.0992 mL
	10 mM	0.2050 mL	1.0248 mL	2.0496 mL

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

### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: 2.5 mg/mL (5.12 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: 2.5 mg/mL (5.12 mM); Clear solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

### Description

DB18 is a potent and selective inhibitor of CDC2-like kinases (CLKs), with IC<sub>50</sub> values in the range of 10-30 nM for CLK1, CLK2 and CLK4. DB18 has anti-tumor activity<sup>[1]</sup>.

## REFERENCES

- [1]. Brahmaiah D, et al. Discovery of DB18, a potent inhibitor of CLK kinases with a high selectivity against DYRK1A kinase. *Bioorg Med Chem.* 2021 Feb 1;31:115962.

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

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