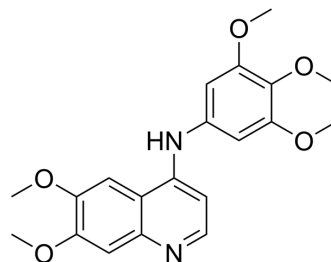


## GAK inhibitor 49

<b>Cat. No.:</b>	HY-124793		
<b>CAS No.:</b>	319492-82-5		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>22</sub> N <sub>2</sub> O <sub>5</sub>		
<b>Molecular Weight:</b>	370.4		
<b>Target:</b>	Cyclin G-associated Kinase (GAK)		
<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

<b>In Vitro</b>	DMSO : 50 mg/mL (134.99 mM; ultrasonic and warming and heat to 80°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.6998 mL	13.4989 mL	26.9978 mL
		5 mM	0.5400 mL	2.6998 mL	5.3996 mL
10 mM		0.2700 mL	1.3499 mL	2.6998 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (5.62 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (5.62 mM); Suspended solution; Need ultrasonic				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.62 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	GAK inhibitor 49 is a potent, ATP-competitive and highly selective cyclin G associated kinase (GAK) inhibitor with a K <sub>i</sub> of 0.54 nM and a cell IC <sub>50</sub> of 56 nM. GAK inhibitor 49 also shows binding to RIPK2 <sup>[1]</sup> .
<b>In Vitro</b>	GAK inhibitor 49 (compound 49) shows a weak inhibitory effect on AAK1, BMP2K and STK16, with IC <sub>50</sub> s of 28, 63 and >100 μM, respectively <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Asquith CRM, et al. Identification and Optimization of 4-Anilinoquinolines as Inhibitors of Cyclin G Associated Kinase. ChemMedChem. 2018;13(1):48-66.

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

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