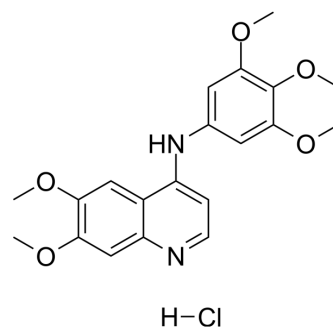


## GAK inhibitor 49 hydrochloride

<b>Cat. No.:</b>	HY-124793A
<b>CAS No.:</b>	2930378-91-7
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>23</sub> ClN <sub>2</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	406.86
<b>Target:</b>	Cyclin G-associated Kinase (GAK)
<b>Pathway:</b>	Cell Cycle/DNA Damage
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 14.29 mg/mL (35.12 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		2.4578 mL	12.2892 mL	24.5785 mL
		<b>5 mM</b>		0.4916 mL	2.4578 mL	4.9157 mL
<b>10 mM</b>		0.2458 mL	1.2289 mL	2.4578 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: ≥ 1.43 mg/mL (3.51 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	GAK inhibitor 49 hydrochloride 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 hydrochloride also shows binding to RIPK2 <sup>[1]</sup> .
<b>In Vitro</b>	GAK inhibitor 49 (compound 49) hydrochloride 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.

### REFERENCES

[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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