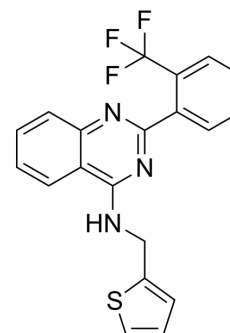


## NIH-12848

Cat. No.:	HY-101423		
CAS No.:	959551-10-1		
Molecular Formula:	C <sub>20</sub> H <sub>14</sub> F <sub>3</sub> N <sub>3</sub> S		
Molecular Weight:	385.41		
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 : ≥ 100 mg/mL (259.46 mM)

\* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5946 mL	12.9732 mL	25.9464 mL
	5 mM	0.5189 mL	2.5946 mL	5.1893 mL
	10 mM	0.2595 mL	1.2973 mL	2.5946 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 (6.49 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (6.49 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

NIH-12848 is a putative phosphatidylinositol 5-phosphate 4-kinase  $\gamma$  (PI5P4K $\gamma$ ) inhibitor with an IC<sub>50</sub> of 1  $\mu$ M.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 1  $\mu$ M (PI5P4K $\gamma$ )<sup>[1]</sup>

#### In Vitro

NIH-12848 inhibits PI5P4K $\gamma$  with an IC<sub>50</sub> of approximately 1  $\mu$ M but does not inhibit the  $\alpha$  and  $\beta$  PI5P4K isoforms at concentrations up to 100  $\mu$ M. NIH-12848 inhibits the translocation of Na<sup>+</sup>/K<sup>+</sup>-ATPase to the plasma membrane that occurs when mpkCCD cells grow to confluence and also prevents reversibly their forming of 'domes' on the culture dish. Both these NIH-12848-induced effects are mimicked by specific RNAi knockdown of PI5P4K $\gamma$ , but not that of PI5P4Ks  $\alpha$  or  $\beta$ . NIH-12848 could be a potentially powerful tool for exploring the cell physiology of PI5P4Ks<sup>[1]</sup>.

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

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

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