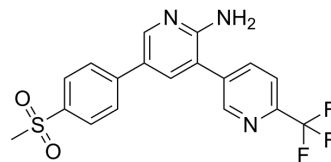


## MMV390048

Cat. No.:	HY-106005
CAS No.:	1314883-11-8
Molecular Formula:	C <sub>18</sub> H <sub>14</sub> F <sub>3</sub> N <sub>3</sub> O <sub>2</sub> S
Molecular Weight:	393.38
Target:	Parasite; PI4K
Pathway:	Anti-infection; PI3K/Akt/mTOR
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (254.21 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	
				5 mg	
				10 mg	
				10 mg	
			1 mg	5 mg	10 mg
	1 mM		2.5421 mL	12.7104 mL	25.4207 mL
	5 mM		0.5084 mL	2.5421 mL	5.0841 mL
	10 mM		0.2542 mL	1.2710 mL	2.5421 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.36 mM); Clear solution				

### BIOLOGICAL ACTIVITY

Description	MMV390048 is a representative of a new chemical class of Plasmodium PI4K inhibitor ( $K_d^{app}=0.3 \mu\text{M}$ ). MMV390048 binds to the ATP binding site of Plasmodium PI4K and does not bind to other <i>P. falciparum</i> and human kinases apart from human PIP4K2C, thus alleviating potential kinase-mediated safety concerns. MMV390048 is an antimalarial agent <sup>[1]</sup> .
IC <sub>50</sub> & Target	Plasmodium
In Vitro	MMV390048 against intraerythrocytic life cycle stages of <i>P. falciparum</i> (NF54 drug-sensitive strain) showed a steep inhibition curve with IC <sub>50</sub> and IC <sub>90</sub> values of 28 and 40 nM, respectively. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

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- Antimicrob Agents Chemother. 2022 Aug 4;e0057422.
  - Obihiro University of Agriculture and Veterinary Medicine. 2023 Mar 20.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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[1]. Paquet T, et al. Antimalarial efficacy of MMV390048, an inhibitor of Plasmodium phosphatidylinositol 4-kinase. Sci Transl Med. 2017 Apr 26;9(387). pii: eaad9735.

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

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