TCMDC-135051 hydrochloride

Cat. No.: HY-126323B

CAS No.: 2705545-47-5

Molecular Formula: $C_{29}H_{34}ClN_3O_3$

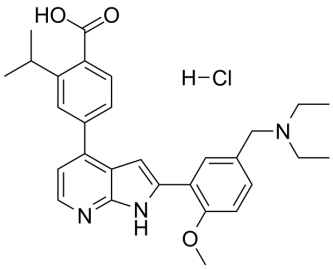
Molecular Weight: 508.05

Target: Parasite

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (164.02 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9683 mL	9.8416 mL	19.6831 mL
	5 mM	0.3937 mL	1.9683 mL	3.9366 mL
	10 mM	0.1968 mL	0.9842 mL	1.9683 mL

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

BIOLOGICAL ACTIVITY

Description

TCMDC-135051 hydrochloride is a highly selective and potent protein kinase *Pf*CLK3 inhibitor with low off-target toxicity. TCMDC-135051 hydrochloride prevents trophozoite-to-schizont transition, disrupts transcription and reduces transmission to the mosquito vector. TCMDC-135051 hydrochloride has antiparasiticidal activity (EC_{50}=320 nM)[1].

In Vitro

TCMDC-135051 hydrochloride shows potent activity against P. berghei sporozoites in a liver invasion and development assay in which the compound shows a pEC_{50} value of 6.17 (EC_{50}=0.40 μM). The kinase assays using recombinant PvCLK3 (P. vivax) and PbCLK3 (P. berghei) show that TCMDC-135051 hydrochloride has near-equipotent inhibition at these two orthologs, with pIC_{50} values of 7.47 (IC_{50}=0.033 μM) and 7.86 (IC_{50}=0.013 μM), respectively[1].

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

REFERENCES

[1]. Alam MM, et al. Validation of the protein kinase PfCLK3 as a multistage cross-species malarial drug target. Science. 2019 Aug 30;365(6456). pii: eaau1682.

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

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