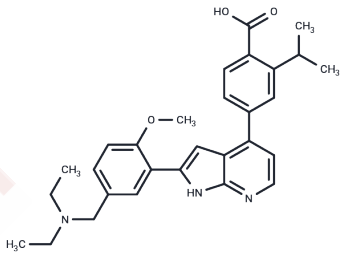
Data Sheet (Cat.No.T13102)

TargetMol

TCMDC-135051

Chemical Properties



CAS No. : 2413716-15-9

Formula: C29H33N3O3

Molecular Weight: 471.59

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	TCMDC-135051 is a potent and selective PfCLK3 protein kinase inhibitor demonstrating significant antiparasiticidal activity (EC50=320 nM) while exhibiting minimal off-target toxicity. It effectively hinders the transition from trophozoite to schizont, impairs transcription, and diminishes transmission to the mosquito vector.
Targets(IC50)	Others,Parasite
In vitro	In a liver invasion and development assay, TCMDC-135051 shows potent activity against P. berghei sporozoites in which the compound shows a pEC50 value of 6.17 (EC50=0.40 μM). The kinase assays using recombinant PvCLK3 (P. vivax) and PbCLK3 (P. berghei) show that TCMDC-135051 has near-equipotent inhibition at these two orthologs, with pIC50 values of 7.47 (IC50=0.033 μM) and 7.86 (IC50=0.013 μM), respectively[1].

Solubility Information

Solubility	DMSO: 225 mg/mL (477.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (10.6 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1205 mL	10.6024 mL	21.2049 mL
5 mM	0.4241 mL	2.1205 mL	4.241 mL
10 mM	0.212 mL	1.0602 mL	2.1205 mL
50 mM	0.0424 mL	0.212 mL	0.4241 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.