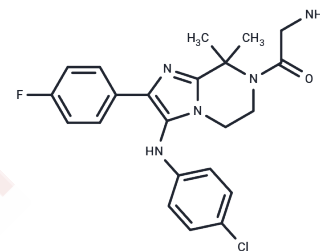


GNF179

Chemical Properties

CAS No. : 1261114-01-5
 Formula: C₂₂H₂₃ClFN₅O
 Molecular Weight: 427.9
 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	GNF179, an optimized 8,8-dimethyl IP analog, exhibits potency (4.8 nM against the multidrug-resistant strain W2), in vitro metabolic stability, and in vivo oral bioavailability.
Targets(IC50)	Parasite
In vitro	GNF179 was able to protect against an infectious <i>P. berghei</i> sporozoite challenge with a single oral dose at 15 mg/kg while NITD609 was not. GNF179 reduced <i>Plasmodium berghei</i> parasitemia levels by 99.7% with a single 100 mg/kg oral dose, and prolonged mouse survival by an average of 19 days. Anti-parasitic agent GNF179 exhibits a low clearance (CL=22 ml/min/kg, ~25% of hepatic blood flow in mice), a large volume of distribution (steady-state volume of distribution, V _{ss} =11.8 l/kg), a moderate residence time (MRT=9 hours) and suitable terminal half-life (t _{1/2} =8.9 hours).

Solubility Information

Solubility	DMSO: 120 mg/mL (280.44 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: 4 mg/mL (9.35 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.337 mL	11.685 mL	23.3699 mL
5 mM	0.4674 mL	2.337 mL	4.674 mL
10 mM	0.2337 mL	1.1685 mL	2.337 mL
50 mM	0.0467 mL	0.2337 mL	0.4674 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

Meister S, et al. Imaging of Plasmodium liver stages to drive next-generation antimalarial drug discovery. Science. 2011 Dec 9;334(6061):1372-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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