FGI-106 tetrahydrochloride

Cat. No.: HY-124618A

CAS No.: 1149348-10-6

Molecular Formula: $C_{28}H_{42}Cl_4N_6$

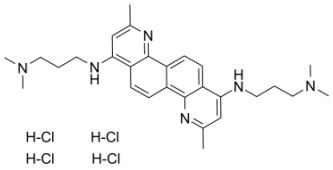
Molecular Weight: 604.49

Target: Influenza Virus; HCV; HIV

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.67 mg/mL (11.03 mM; ultrasonic and warming and adjust pH to 2 with HCl and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6543 mL	8.2714 mL	16.5429 mL
	5 mM	0.3309 mL	1.6543 mL	3.3086 mL
	10 mM	0.1654 mL	0.8271 mL	1.6543 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 0.67 mg/mL (1.11 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 0.67 mg/mL (1.11 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

FGI-106 tetrahydrochloride is a potent and broad-spectrum inhibitor with inhibitory activity against multiple viruses. FGI-106 tetrahydrochloride is active against Ebola, Rift Valley and Dengue Fever viruses with EC_{50}s of 100 nM, 800 nM and 400-900 nM, respectively. FGI-106 tetrahydrochloride also inhibits non-hemorrhagic fever viruses HCV and HIV-1 with EC_{50}s of 200 nM and 150 nM, respectively[1].

IC_{50} & Target

EC50: 100 nM (Ebola virus), 800 nM (Rift Valley virus), 400-900 nM (Dengue Fever virus), 200 nM (HCV) and 150 nM (HIV-1)[1]

In Vitro

Treatment with 2 μM FGI-106 mediated a 4 log reduction in infectious viral titers relative to matched controls, with an EC_{90} for inhibition of viral killing of host cells (Vero E6 cells) estimated to be 0.6 μM[1].
In cell-based assays, treatment with FGI-106 inhibits viral replication by divergent virus families, including positive and

	negative-strand RNA viruses[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	FGI-106 (0.1-5 mg/kg; intraperitoneal injection; treatments on days 2 and 5; C57BL/6 or BALB/c mice) treatment decreases mortality from Zaire EBOV in a dose-dependent manner[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male or female C57BL/6 or BALB/c mice (6-10 weeks of age) injected with EBOV (Ebola virus)[1]
Dosage:	0.1 mg/kg, 0.5 mg/kg, 1 mg/kg, 2 mg/kg, 5 mg/kg
Administration:	Intraperitoneal injection; treatments on days 2 and 5
Result:	Decreased mortality from Zaire EBOV in a dose-dependent manner.

REFERENCES

[1]. Aman MJ, et al. Development of a broad-spectrum antiviral with activity against Ebola virus. Antiviral Res. 2009 Sep;83(3):245-51.

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